

IDRX 6 -

Shumer *Misanin* Deposition
Transcript

(Public document)

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF SOUTH CAROLINA
CHARLESTON DIVISION

STERLING MISANIN, on his own
behalf and on behalf of those
similarly situated; JANE DOE,
on her own behalf and on behalf
of those similarly situated;
JILL RAY, on her own behalf and
on behalf of those similarly
situated; NINA NOE, by and through
her parent and next friend, Nancy
Noe, on her own and on behalf of
those similarly situated; NANCY NOE,
on her own and on behalf of those
similarly situated; GRANT GOE, by
and through his parent and next
friend; GARY GOE, on his own and
on behalf of those similarly
situated; GARY GOE, on his own and
on behalf of those similarly situated,
Plaintiffs,

-vs-

No: 2:24-cv-04734-BHH

ALAN WILSON, in his official
capacity as Attorney General of



South Carolina; SOUTH CAROLINA
DEPARTMENT OF HEALTH AND HUMAN
SERVICES (DHHS); ROBERT KERR, in
his official capacity as Director
Of DHHS; SOUTH CAROLINA PUBLIC
EMPLOYEE BENEFIT AUTHORITY (PEBA);
PEGGY BOYKIN, in her official capacity
as Executive Director of South Carolina
PEBA; MEDICAL UNIVERSITY OF SOUTH
CAROLINA (MUSC); JAMES LEMON; GUY
CHARLES III; DONALD R. JOHNSON II;
RICHARD M. CHRISTIAN, JR.; HENRY
FREDERICK BUTEHORN III; G. MURRELL
SMITH, SR.; W. MELVIN BROWN III; PAUL
T. BINGHAM, SR.; CHARLES W. SCHULZE;
THOMAS L. STEPHENSON; TERRI R. BARNES;
BARBARA JOHNSON-WILLIAMS; THE HONORABLE
JAMES A. BATTLE, JR.; BARTLETT J.
WITHERSPOON, JR., each in their official
capacities as board members of MUSC;
DAVID COLE, in his official capacity as
President of MUSC,
Defendants.

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The videotaped deposition of DANIEL E. SHUMER, M.D.
taken at 2966 Woodward Avenue,
Detroit, Michigan,
commencing at 9:30 a.m.
Tuesday, October 15, 2024
before Ann L. Bacon CSR-1297.

VIDEOGRAPHER: MR. JEFFREY GUDME

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Detroit, Michigan
Tuesday, October 15, 2024
9:30 a.m.

VIDEOGRAPHER: On the record. This is the video deposition of Daniel Shumer being taken in Detroit, Michigan. Today is Tuesday, October 15th, 2024. Time on the record is approximately 9:30 a.m. eastern time. At this time will the attorneys please identify themselves and affiliations and then our court reporter will swear in the witness?

MR. RAMER: My name is John Ramer of the law firm Cooper & Kirk on behalf of Defendants.

MX. SWAMINATHAN: My name is Sruti Swaminathan. I'm with the ACLU representing Plaintiffs.

MR. SMITH: Zack Smith with the law firm Selendy Gay on behalf of Plaintiffs.

DANIEL E. SHUMER, M.D. was thereupon called as a witness herein, after having been first duly sworn to tell the truth, the whole truth, and nothing but the truth, was examined and testified as follows:

EXAMINATION

BY MR. RAMER:

Q. Good morning, Dr. Shumer.

A. Good morning.

MX. SWAMINATHAN: Counsel, prior to starting the deposition, I just want to note for the record that Plaintiffs and Defendants have yet to reach an agreement with respect to the time spent with Dr. Shumer, whether it will be taken from the seven hours total that Defendants have with this expert witness, noting that Plaintiffs' position is that it will, and Defendants' position is that it will not.

MR. RAMER: Yes, I agree with counsel's understanding of our agreement, or lack thereof.

MX. SWAMINATHAN: Thank you.

MR. RAMER: Good morning again, Dr. Shumer.

MR. HYDRICK: I'm sorry, John, I don't mean to interrupt you, but this is Thomas Hydrick out of the South Carolina Attorney General's office. I'll be on the line. I'll be here for part of this morning's proceeding.

MR. RAMER: Got it. That is Thomas Hydrick of the South Carolina Attorney General's Office.

1 MR. SELDIN: I'll also note that Harper
2 Seldin from the ACLU on behalf of the Plaintiffs
3 is also present this morning.

4 MS. FAIRBAIRN: And Vivian Fairbairn is
5 present on behalf of the Medical University of
6 South Carolina. I will be permanently on Zoom.

7 Q. (Continuing, by Mr. Ramer) Good morning for the
8 third time, Dr. Shumer.

9 A. Good morning.

10 Q. And I know that you have been deposed several
11 times before, so this will be the usual drill.

12 According to the local rules, I am obligated to
13 inform you that you should ask me rather than
14 your own counsel for clarifications, definitions
15 or explanations of any words, questions or
16 documents presented during the course of the
17 deposition. Does that make sense?

18 A. Yes.

19 Q. Great. And I will aim for breaks on about the
20 hour. If you ever need a break, just let me
21 know. My only request is that you answer any
22 pending questions and we will try not to talk
23 over one another to help out the court reporter
24 and that should be it. Does that all make sense?

25 A. It does.

1 (Marked Exhibit No. 3.)

2 Q. (Continuing, by Mr. Ramer) You've been handed
3 what's been marked as Shumer Exhibit 3, correct?

4 A. Yes.

5 Q. And does this appear to be a copy of your errata
6 sheet for your deposition in Boe versus Marshall?

7 A. Yes.

8 Q. And did you give truthful testimony during your
9 deposition in Boe versus Marshall?

10 A. Yes.

11 Q. So returning to your declaration, same
12 paragraph, you also list K.C., et al versus
13 Medical Licensing Board of Indiana, correct?

14 A. Yes.

15 (Marked Exhibit No. 4.)

16 Q. (Continuing, by Mr. Ramer) And you've been
17 handed what's been marked as Shumer Exhibit 4,
18 and does this appear to be a copy of your
19 deposition transcript from the K.C. case?

20 A. Yes.

21 (Marked Exhibit No. 5.)

22 Q. (Continuing, by Mr. Ramer) Counsel, you've
23 been -- I'm sorry, Dr. Shumer, you've been
24 handed what's been marked as Shumer Exhibit 5.
25 Does this appear to be a copy of your errata

1 (Marked Exhibit No. 1.)

2 Q. (Continuing, by Mr. Ramer) And Dr. Shumer,
3 you've been handed what's been marked as Shumer
4 Exhibit 1. Is this the declaration that you
5 submitted in this case?

6 A. Yes.

7 Q. And do you have any corrections or updates to it
8 that you're aware of now?

9 A. No.

10 Q. I'd like to go to page five, and this is the
11 carryover paragraph, paragraph 16. Do you see
12 that?

13 A. Yes.

14 Q. And among the cases where you've offered prior
15 testimony, you list Boe versus Marshall, correct?

16 A. Yes.

17 (Marked Exhibit No. 2.)

18 Q. (Continuing, by Mr. Ramer) You've been handed
19 what's been marked as Shumer Exhibit 2, correct?

20 A. Yes.

21 Q. And does this appear to be the transcript of
22 your deposition in Boe versus Marshall?

23 A. Yes.

24 Q. And the first part of this is going to be some
25 housekeeping along these lines.

1 sheet for the K.C. deposition?

2 A. Yes.

3 Q. And did you give truthful testimony during your
4 deposition in K.C.?

5 A. Yes.

6 Q. And in your declaration, same paragraph, you
7 list Noe versus Parson, correct?

8 A. Yes.

9 (Marked Exhibit No. 6.)

10 Q. (Continuing, by Mr. Ramer) And, Doctor, you've
11 been handed what's been marked as Shumer
12 Exhibit 6 and does this appear to be a copy of
13 your deposition transcript in Noe versus Parson?

14 A. Yes.

15 (Marked Exhibit No. 7.)

16 Q. (Continuing, by Mr. Ramer) And, Doctor, you've
17 been handed what's been marked as Shumer Exhibit 7.
18 Does this appear to be a copy of your errata
19 sheet for your deposition in Noe versus Parson?

20 A. Yes.

21 Q. And you also testified at a hearing, or at least
22 a preliminary injunction hearing in Noe versus
23 Parson, correct?

24 A. Yes.

25 (Marked Exhibit No. 8.)

1 Q. (Continuing, by Mr. Ramer) And, Doctor, you've
 2 been handed what's been marked as Shumer Exhibit 8,
 3 and does this appear to be a copy of your
 4 testimony during the preliminary injunction
 5 hearing in Noe versus Parson?
 6 A. Yes.
 7 Q. And did you give truthful testimony during the
 8 preliminary injunction hearing and during your
 9 deposition in Noe versus Parson?
 10 A. Yes.
 11 Q. And it's not listed in your declaration, but you
 12 recently testified at a deposition in Voe versus
 13 Mansfield, a case out of North Carolina, correct?
 14 A. Yes.
 15 (Marked Exhibit No. 9.)
 16 Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've
 17 been handed what's been marked as Shumer Exhibit 9.
 18 Does this appear to be a copy of your deposition
 19 transcript from Voe versus Mansfield?
 20 A. Yes.
 21 (Marked Exhibit No. 10.)
 22 Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've been
 23 handed what's been marked as Shumer Exhibit 10.
 24 Does this appear to be a copy of your errata
 25 sheet for your deposition in Voe versus Mansfield?

1 with the counselors representing the Plaintiffs
 2 and that's it, and I reviewed my expert report.
 3 Q. And without divulging the contents of any
 4 conversations with counsel, who specifically did
 5 you meet with when you were preparing for today?
 6 A. The two counselors here today.
 7 Q. And other than the law at issue and your
 8 declaration that you've submitted, which is
 9 Exhibit 1, did you review any other documents
 10 when you were preparing for today?
 11 A. No.
 12 Q. And are you aware that Dr. Olson-Kennedy is
 13 serving as an expert in this case?
 14 A. Yes.
 15 Q. Are you aware that she was deposed last week?
 16 A. Yes.
 17 Q. Did you read the transcript from her deposition?
 18 A. No.
 19 Q. Okay. Dr. Shumer, you are a pediatric
 20 endocrinologist, correct?
 21 A. Correct.
 22 Q. And do you personally diagnose patients with
 23 gender dysphoria?
 24 A. Yes.
 25 Q. And I'd like to go to Shumer Exhibit 4, which is

1 A. Yes.
 2 Q. And last one, in your declaration you also list
 3 participating in a case Koe versus Noggle in
 4 Georgia. Do you see that?
 5 A. Yes.
 6 Q. And you testified at a hearing in that case,
 7 correct?
 8 A. Yes.
 9 (Marked Exhibit No. 11.)
 10 Q. (Continuing, by Mr. Ramer) And you've been
 11 handed what's been marked as Shumer Exhibit 11.
 12 Does this appear to be a copy of the transcript
 13 of your testimony at the hearing in Koe versus
 14 Noggle?
 15 A. Yes.
 16 Q. And I don't think I asked this, but did you give
 17 truthful testimony during your deposition in Voe
 18 versus Mansfield?
 19 A. Yes.
 20 Q. And did you give truthful testimony during this
 21 hearing in Koe versus Noggle?
 22 A. Yes.
 23 Q. And, Doctor, what did you do to prepare for your
 24 deposition today?
 25 A. I reviewed the legislation in question. I met

1 your deposition transcript in K.C. and I'd like
 2 to go to page 37 of the transcript so the small
 3 numbers and starting at line 16 of this page,
 4 you say, "You know, I'm speaking as a pediatric
 5 endocrinologist that doesn't make a diagnosis of
 6 gender dysphoria, of course, but -- but just
 7 like the diagnosis of depression or schizophrenia
 8 or anxiety, all of these have clinical criteria,
 9 and so someone is diagnosed based on meeting
 10 those criteria." Did I read that correctly?
 11 A. Yes.
 12 Q. And when you say that you were speaking as a
 13 pediatric endocrinologist that doesn't make a
 14 diagnosis of gender dysphoria, was that
 15 statement accurate?
 16 A. It's not accurate in that I make a diagnosis of
 17 gender dysphoria when I'm seeing patients in
 18 clinic, but that the way that our clinic
 19 functions, the primary diagnosis of gender
 20 dysphoria, the diagnosis that occurs first and
 21 informs the rest of the patient's journey
 22 through the clinic happens with one of our
 23 mental health professionals.
 24 Q. And so when you said you were speaking as a
 25 pediatric endocrinologist that doesn't make a

1 diagnosis of gender dysphoria, you're saying
2 that you actually do make a diagnosis of gender
3 dysphoria, is that right?

4 MX. SWAMINATHAN: Objection to form.

5 A. I don't think that's what I was saying in this
6 transcript, but when I spoke, I was -- when I
7 misspoke here, I was thinking of the fact that
8 the primary diagnosis in our clinic is made by a
9 mental health professional, but it is true,
10 despite this particular transcript, that I also
11 make the diagnosis of gender dysphoria when I'm
12 seeing a patient who has subsequently been seen
13 by one of our mental health professionals on our
14 multi-disciplinary team.

15 Q. (Continuing, by Ramer) Okay. And you use the
16 DSM-5 to diagnose gender dysphoria, is that right?

17 A. Yes.

18 Q. Do you view the DSM-5 as a reliable source?

19 MX. SWAMINATHAN: Objection to form.

20 A. I'm not sure that I would call it -- I'm not
21 sure that I understand what you mean by source.
22 It's the handbook of diagnoses that we use to
23 diagnose mental health disorders and it's the
24 criteria that defines gender dysphoria.

25 Q. (Continuing, by Mr. Ramer) And I guess when I

1 ask whether you think it's a reliable source, my
2 question is do you think that information
3 contained in the DSM-5 is reliable?

4 A. Yes.

5 (Marked Exhibit No. 12.)

6 Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've been
7 handed what's been marked as Shumer Exhibit 12
8 and does this appear to be the front page
9 material and then the chapter on gender
10 dysphoria from the DSM-5?

11 A. Yes.

12 Q. And when you say you have diagnosed gender
13 dysphoria, have you diagnosed gender dysphoria
14 in childhood?

15 MX. SWAMINATHAN: Objection to form.

16 A. Gender dysphoria in children and gender
17 dysphoria in adolescents and adults are two
18 different diagnoses and you would use gender
19 dysphoria in children, that diagnosis, when
20 working with a pre-pubertal individual, so yes,
21 I have used that diagnosis when meeting with
22 pre-pubertal individuals that met these criteria.

23 Q. (Continuing, by Mr. Ramer) Okay. I'd like to,
24 in Shumer Exhibit 12, I'd like to go to the
25 third page and starting there and carrying over

1 to the following page, do you see it lists the
2 criteria for gender dysphoria in children?

3 A. Yes.

4 Q. And in looking at criterion A-6 on the third
5 page of the document, it lists as one of the
6 criteria, "In boys (assigned gender), a strong
7 rejection of typically masculine toys, games and
8 activities and a strong avoidance of
9 rough-and-tumble play; or in girls (assigned
10 gender), a strong rejection of typically feminine
11 toys, games and activities." Did I read that
12 correctly?

13 A. Yes.

14 Q. And what are typically masculine toys?

15 MX. SWAMINATHAN: Objection to form.

16 A. I would say that in 2024 we often go to the
17 store and there is a toy section. Some toys we
18 might look at and say a stereotypical boy might
19 enjoy these toys. Some toys you might look at
20 and say a stereotypical girl might enjoy these
21 toys, but I would say that all toys could and
22 should be played or allowed to be played with by
23 boys and girls. I think when you ask parents
24 this question, do they play with stereotypically
25 boy toys or girl toys, parents are able to

1 answer that question without too much difficulty,
2 that they can recall going to the store and
3 maybe with their child assigned male at birth
4 steering them towards the section of the store
5 that they might think that they would enjoy, but
6 then being pulled by their child towards a
7 different area of the store, and so those sorts
8 of historical comments by parents would imply a
9 difference in toy or play behavior that is more
10 stereotypically masculine or feminine in our
11 society.

12 Q. (Continuing, by Mr. Ramer) But the parents are
13 not the ones who are applying criterion A-6 to
14 form -- the parents are not the ones applying
15 the criterion in A-6 to inform the diagnosis of
16 gender dysphoria in children, correct?

17 MX. SWAMINATHAN: Objection, form.

18 A. Correct. It's the questions around -- it's the
19 answers the parents provide to these questions
20 that allows the practitioner to apply the
21 diagnosis or not.

22 Q. (Continuing, by Mr. Ramer) Well, I guess how
23 does it work in practice then when you have the
24 patient and the question is does the patient
25 have a strong rejection of typically masculine

1 toys and the parent tells you, well, my child
2 who was assigned female at birth has a strong
3 rejection of dolls, as the provider, do you
4 consider that as satisfying criterion A-6?

5 MX. SWAMINATHAN: Objection to form.

6 A. Perhaps if in the context of the full
7 conversation it was clear that A-6 was met.

8 Q. (Continuing, by Mr. Ramer) And how do you assess
9 whether in the fuller conversation it appears
10 that A-6 is met?

11 A. I don't think it's very challenging, to be
12 honest. I think that when you're taking a
13 gender history from a parent, you're oftentimes
14 spending time with hearing their story or their
15 experience parenting their child, that if they
16 don't explicitly bring up toy play or toy
17 behavior, toy preference and toy play behavior,
18 you would inquire. They would tell you their
19 experience and then you would use your clinical
20 judgment to determine whether A-6 was met.

21 Q. Without divulging information related to any
22 particular individual patient, can you just
23 provide some examples of where you have
24 determined that A-6 was met because there was a
25 strong rejection of particular toys, games or

1 activities?

2 A. I don't have a verbatim example of what a parent
3 might say, but similar to what I said before,
4 that the example of going to the toy store,
5 assuming that they would choose a particular
6 toy, rejecting that aisle of the store and
7 instead pulling their parent towards a different
8 area of the store.

9 Q. But you'd have to determine whether the
10 particular toy or aisle is typically masculine
11 or typically feminine, right?

12 MX. SWAMINATHAN: Objection to form.

13 A. The parent would have to determine that, yes.
14 So as a parent myself, I can tell you that my
15 child rejects stereotypically feminine toys and
16 loves stereotypically masculine toys. I know
17 what that means to me and my son doesn't have
18 gender dysphoria. If someone asks me those
19 types of questions, I'd be able to answer them
20 as a parent and in my experience parents are
21 able to answer those questions when I ask them
22 without any difficulty.

23 Q. (Continuing, by Mr. Ramer) And so you as the
24 clinician are not making a determination of
25 whether a particular toy is typically masculine.

1 Is that what you're saying?

2 MX. SWAMINATHAN: Objection,
3 mischaracterizes the testimony.

4 A. If you're asking me if I have a list of toys
5 that I ask if they reject or accept, I don't do
6 that, though I ask the parents plainly about
7 their experience with toy preference and play
8 behavior and parents without much difficulty are
9 able to explain their experience to help me
10 understand whether the individual meets or does
11 not meet A-6.

12 Q. (Continuing, by Mr. Ramer) And I'm not looking
13 for a list. I'm just trying to understand how
14 you as the clinician perform this diagnosis, and
15 please correct my understanding if it's wrong,
16 but my understanding of what you're saying is
17 that you will listen to the parents and if they
18 tell you that the child has a strong rejection
19 of typically masculine toys in the parents' view
20 of what is typically masculine, then you accept
21 that as satisfying A-6, is that right?

22 MX. SWAMINATHAN: Objection, form.

23 A. I may be relying on the parents' understanding
24 of what they perceive as masculine or feminine
25 toys, although I haven't been in a situation

1 where parents have a view that is distinctly
2 different from our general societal view of
3 stereotypically masculine and feminine toys, and
4 the question of whether I agree with the parents
5 on their definition of toys isn't something that
6 I've spent any time thinking about specifically.
7 It's only to say that the conversation around
8 what toy preferences children have is quite
9 straightforward in that parents are understanding
10 what this question means and I'm understanding
11 what their answer is in a way that typically is
12 unambiguous, and if there isn't a difference in
13 toy preference, then the child wouldn't meet the
14 criteria. I think it's also worth saying that
15 whether or not a pre-pubertal child does or
16 doesn't meet the criteria for gender dysphoria
17 is not a primary focus of my job as a pediatric
18 endocrinologist, as I'm primarily seeing
19 adolescents that are pubertal and making
20 decisions around medical interventions, so the
21 percentage of patients that I see that are
22 pre-pubertal is quite low, and whether or not
23 that's helpful in the course of discussing this
24 line of questioning, I'm not sure, but I thought
25 I would just add that.

1 Q. (Continuing, by Mr. Ramer) Okay. Let's go to
 2 the next page then which has the criteria for
 3 adolescents, correct?
 4 A. Yes.
 5 Q. And you've just said this is more often the
 6 population that you are diagnosing and treating,
 7 is that right?
 8 A. Correct.
 9 Q. And in this list of criteria for A-6, it refers
 10 to, "A strong conviction that one has the
 11 typical feelings and reactions of the other
 12 gender (or some alternative gender different
 13 from one's assigned gender)." Do you see that?
 14 A. Yes.
 15 Q. And what are the typical reactions of the female
 16 gender?
 17 MX. SWAMINATHAN: Objection to form.
 18 A. I would suggest that this is something that I
 19 learn about from the patients themselves. If
 20 they describe that they have feelings that they
 21 feel are consistent with the other gender, then
 22 that would satisfy the criteria A-6.
 23 Q. (Continuing, by Mr. Ramer) And so basically if a
 24 patient says I think that members of the female
 25 gender react this particular way to distressing

1 know why that is, do we?
 2 A. No.
 3 MX. SWAMINATHAN: Objection to form.
 4 A. No.
 5 Q. (Continuing, by Mr. Ramer) And, Doctor, you
 6 agree that it is possible to misdiagnose gender
 7 dysphoria, correct?
 8 MX. SWAMINATHAN: Objection to form.
 9 A. I would suggest that the criteria for gender
 10 dysphoria are pretty clearly laid out by the DSM
 11 that gender dysphoria, the diagnosis is made in
 12 clinical interview by asking a patient questions
 13 related to the diagnostic criteria, and so
 14 during that interview they would either meet or
 15 not meet the criteria. I think in that way it's
 16 hard to say that it would be misdiagnosed. Could a
 17 patient be answering questions incorrectly or
 18 hiding things just like any other medical
 19 encounter, that's possible, but I think the
 20 question that we're really asking in terms of
 21 misdiagnosis would be is someone's gender
 22 dysphoria today predictive of their gender
 23 identity in the future? I would say the answer
 24 to your question, I don't think that a clinician
 25 that knows how to apply the DSM would per se

1 news and I react this particular way to
 2 distressing news, that would be an example of
 3 where the patient, if it's assigned male at
 4 birth, would satisfy A-6, is that right?
 5 MX. SWAMINATHAN: Objection to form.
 6 A. Yes.
 7 Q. (Continuing, by Mr. Ramer) And sticking with
 8 this document, which is Shumer Exhibit 12, I'd
 9 like to go three pages later to a page that has
 10 a bold word Prevalence in the center, sort of
 11 center. Do you see that?
 12 A. Yes.
 13 Q. And in the first full paragraph on this page, so
 14 a few paragraphs above the word Prevalence, it
 15 says, "In children, adolescents, and adults with
 16 gender dysphoria, an overrepresentation of
 17 autism spectrum traits has been observed." Do
 18 you see that?
 19 A. Yes.
 20 Q. And do you agree there's an overrepresentation
 21 of those with an autism spectrum disorder among
 22 children and adolescents with gender dysphoria?
 23 MX. SWAMINATHAN: Objection to form.
 24 A. Yes.
 25 Q. (Continuing, by Mr. Ramer) And we don't really

1 misdiagnose gender dysphoria, but that the
 2 question about what that diagnosis means and how
 3 predictive it is of future gender identity is
 4 more important.
 5 Q. (Continuing, by Mr. Ramer) And if the question
 6 is that you agree that it is possible to
 7 misdiagnose gender dysphoria?
 8 A. I suppose.
 9 MX. SWAMINATHAN: Objection.
 10 A. I suppose.
 11 Q. (Continuing, by Mr. Ramer) And sticking with
 12 Shumer Exhibit 12, the DSM, I'd like to go to
 13 the next page from where we just were and you
 14 can see there's a page break 516 on this page.
 15 Do you see that?
 16 A. Yes.
 17 Q. And down toward the bottom a few paragraphs up
 18 from the bottom there is a paragraph with some
 19 percentages in it. Do you see that?
 20 A. Yes.
 21 MX. SWAMINATHAN: Counsel, do you mind
 22 giving Dr. Shumer a minute to read the page?
 23 MR. RAMER: Sure.
 24 Q. (Continuing, by Mr. Ramer) Okay. And in the
 25 paragraph with percentages in it, the final

1 sentence of that paragraph says, "Early social
2 transitions may also be a factor in persistence
3 of gender dysphoria in adolescence." Did I read
4 that correctly?

5 A. Yes.

6 Q. Do you have any reason to disagree with that
7 statement in the DSM-5?

8 MX. SWAMINATHAN: Objection, form.

9 A. To me it's a little bit unclear if they're
10 implying that the early social transition is
11 causative of, a causative factor in persistence
12 or is it an associated factor in persistence.
13 My understanding and my experience is that early
14 social transition is associated with persistence
15 of gender dysphoria in adolescence in that those
16 with strongest and most deeply felt difference
17 in gender identity are the most likely to
18 partake in social transition, and also the most
19 likely to have persistence of gender dysphoria
20 into adolescence rather than the early social
21 transition being causative of persistence.

22 Q. (Continuing, by Mr. Ramer) Can you name any
23 study that controls for social transition when
24 assessing the likelihood that an adolescent's
25 gender dysphoria will persist into adulthood?

1 A. I can't.

2 Q. And you cannot name a study that controls for
3 medical interventions when assessing the
4 likelihood that an adolescent's gender dysphoria
5 will persist into adulthood, correct?

6 MX. SWAMINATHAN: Objection to form.

7 A. Correct.

8 Q. (Continuing, by Mr. Ramer) I'd like to return to
9 Shumer Exhibit 1, which is your declaration in
10 this case, and on page seven and carrying over
11 through page eight, you have about five paragraphs
12 on your opinion that there is a biological basis
13 for gender dysphoria, is that right?

14 A. Yes.

15 Q. Why is that significant to you?

16 MX. SWAMINATHAN: Objection to form.

17 A. For a few reasons. One, I think it's important
18 if we are trying to best understand gender
19 identity to understand the origin of gender
20 identity just from a scientific perspective. I
21 think from the perspective of talking to
22 patients and families, I'll have parents that
23 may come to clinic feeling that there was
24 something that they did to cause their child to
25 be transgender. They have feelings of guilt

1 around maybe I said this wrong or didn't do this
2 right and they're worried that something about
3 the child's environment caused their gender
4 identity difference and providing information
5 about what we do and don't know about the origin
6 of gender identity can be helpful in having that
7 conversation with parents and with adolescents
8 who are trying to understand why they feel a
9 certain way. I think that, furthermore, that
10 when in the context of some of the legislation
11 being passed, the defense experts have posited
12 that things like social media have turned people
13 trans and that there is somehow a fraudulentness
14 to gender identity diversity, and understanding
15 that there is a biologic underpinning to gender
16 identity helps to validate the patients that I
17 see every day and that they have a true
18 difference in how they feel that isn't made up
19 in their own heads and that is an element of
20 their person that deserves respect and that is
21 an element of their person that shouldn't be
22 discriminated against.

23 Q. (Continuing, by Mr. Ramer) Would any of your
24 opinions about the safety and efficacy of
25 medical interventions for gender dysphoria

1 change if there weren't, as you call it, a
2 biological foundation for gender identity?

3 MX. SWAMINATHAN: Objection to form.

4 A. Can you ask that question again please?

5 Q. (Continuing, by Mr. Ramer) Would any of your
6 opinions about the safety and efficacy of
7 medical interventions for gender dysphoria
8 change if there weren't, as you call it, a
9 biological foundation for gender identity?

10 MX. SWAMINATHAN: Same objection.

11 A. I don't know.

12 Q. (Continuing, by Mr. Ramer) And you agree that
13 there is no lab test or other objective physical
14 test to determine somebody's gender identity,
15 correct?

16 MX. SWAMINATHAN: Objection, form.

17 A. Yes.

18 Q. (Continuing, by Mr. Ramer) And we do not know with
19 certainty what causes gender identity, correct?

20 MX. SWAMINATHAN: Objection to form.

21 A. Correct.

22 Q. (Continuing, by Mr. Ramer) And you cannot know
23 for certain what a minor's gender identity will
24 be in the future, correct?

25 A. Correct.

1 Q. And you only learn someone's gender identity by
2 them telling you what it is, correct?
3 MX. SWAMINATHAN: Objection to form.
4 A. I would add telling me what it is through a
5 clinical interview.
6 Q. (Continuing, by Mr. Ramer) Can a person's gender
7 identity change?
8 A. I would certainly say that a person can describe
9 their gender identity in different ways
10 throughout their life, and so a person's
11 understanding of their gender identity can
12 change and evolve, yes.
13 Q. And am I understanding correctly that you are
14 drawing a distinction between a person's gender
15 identity and their understanding of their gender
16 identity?
17 A. I was.
18 Q. And you agree there are people who identify as
19 female at one point in their life and then later
20 identify as male, correct?
21 MX. SWAMINATHAN: Objection to form.
22 A. Yes.
23 Q. (Continuing, by Mr. Ramer) And your opinion is
24 that their gender identity hasn't changed, correct?
25 MX. SWAMINATHAN: Objection to form.

1 A. Well, I guess I think it's a bit subtle in the
2 semantics, but a person has a gender identity
3 and that is their gender identity, and then
4 they're describing that gender identity, so the
5 description of that person's description of
6 their gender identity has changed and I think
7 that, yes, that's subtly different from what you
8 asked, I agree.
9 Q. (Continuing, by Mr. Ramer) So if a -- if the
10 only way that you can learn a person's gender
11 identity is by them telling you what their
12 gender identity is, which is a reflection of
13 their understanding of their gender identity,
14 what is the basis for your opinion that there is
15 a distinction between gender identity and
16 understanding of gender identity?
17 MX. SWAMINATHAN: Objection to form.
18 A. I think it is a little bit tricky. I guess I'd
19 have to maybe try to explain it through example.
20 If I were, if I were born on a desert island
21 without societal context, would I have a gender
22 identity? I wouldn't know what -- I wouldn't
23 know that there were different types of people,
24 male and female necessarily. I would have a
25 self-concept, but it would be limited in terms

1 of gender identity in any sort of societal way,
2 and then if I was introduced to a society, my
3 gender identity, my understanding of gender
4 identity would be enriched by the social
5 context, then if I moved to a different society
6 with different gender norms, my understanding of
7 my own gender might be different, but my gender
8 identity, my core gender identity is the same,
9 so the way that I'm able to describe it in a
10 societal framework would be different and so
11 would you say that my gender identity has
12 changed? I wouldn't, but I would say that my
13 understanding of my gender identity and my way
14 to describe it in my society has changed and on
15 the desert island I wouldn't identify as
16 anything, and then when I'm now in society, I
17 might identify as a man, but I wouldn't
18 necessarily say my gender identity has changed.
19 I would say my understanding of my gender
20 identity and my social context has changed.
21 Q. (Continuing, by Mr. Ramer) But if a person's
22 understanding of their gender identity is the
23 only way that you can know what their gender
24 identity is, then how can you make the assertion
25 that gender identity does not change?

1 MX. SWAMINATHAN: Objection to form.
2 A. I don't know how to answer the question other
3 than how I have.
4 Q. (Continuing, by Mr. Ramer) But my understanding
5 of what you were saying was your understanding
6 of your gender identity can change based on
7 different social contexts and I get that. You
8 are making a different claim that even though
9 your understanding of your gender identity
10 changes or can change, there is this separate
11 concept of core gender identity as you've put
12 it, and my question is what evidence do you have
13 to support that idea?
14 MX. SWAMINATHAN: Objection to form.
15 A. I would suggest that that's my understanding in
16 talking to patients and hearing their experience,
17 so, for example, a patient who suggests that as
18 a younger child they felt that there was a
19 difference in how they felt about themselves,
20 but they had a hard time understanding what that
21 difference was, and then as they continued to
22 grow into an older child, they understood that
23 difference to be a difference in gender identity
24 and now as an adolescent they're seeing a
25 difference in their secondary sex characteristics

1 develop, they're feeling distressed about that.
 2 They're describing a core difference about their
 3 feeling that they have now different words to
 4 describe as they grow. A person who identified
 5 as a trans man as an adolescent and then as an
 6 adult says, you know, as I've continued to learn
 7 in the world, I now better define my gender
 8 identity as nonbinary, but their description of
 9 how they feel isn't necessarily different, but
 10 they have different contexts and social contexts
 11 and vocabulary to describe how they feel and
 12 they're expressing it in a different way, so
 13 that's how I've experienced gender identity in
 14 talking to patients. I understand that a person
 15 who may classify themselves as a detransitioner
 16 will have had a very strong feeling of gender
 17 identity as a male at one time in their life,
 18 may have undergone some interventions related to
 19 that, and then has regret and states just as
 20 affirmatively that they have a gender identity
 21 as female and that they describe that their
 22 gender identity has changed. I don't have any
 23 evidence to tell them that they're wrong or to
 24 dis-validate that experience or their feelings.
 25 My experience is I haven't had that experience

1 patients and hearing their experience, isn't
 2 what you are discussing the patient's
 3 understanding of their gender identity?
 4 MX. SWAMINATHAN: Objection,
 5 mischaracterizes the testimony and I believe the
 6 witness has answered this question.
 7 A. I think I understand what you're asking. Yes,
 8 so you're asking that I'm learning about their
 9 experience with their gender identity and if
 10 their experience with gender identity can change
 11 over time, is that problematic, or that's not
 12 what you're asking, but that's what I'm thinking
 13 and I guess, yes, I'm asking their experience of
 14 their gender identity. I'm applying a diagnostic
 15 tool in assessment of their understanding of
 16 their gender identity and that diagnostic tool
 17 is something that I use to understand whether or
 18 not their understanding of their gender identity
 19 and their experience with that understanding
 20 equates to them having a medical problem which
 21 we call gender dysphoria and that diagnosis in a
 22 post-pubertal person, while not perfect, is
 23 helpful and predictive of their future
 24 understanding of their gender identity or, as I
 25 said before, their gender identity.

1 and the experiences that I've had with patients
 2 in describing their gender identity has been as
 3 I've described.
 4 Q. (Continuing, by Mr. Ramer) If you are relying on
 5 what a patient is describing for you, you're
 6 necessarily relying on their understanding of
 7 their gender identity, correct?
 8 MX. SWAMINATHAN: Objection, argumentative.
 9 A. I'm asking about their understanding of their
 10 gender identity and their experience in the
 11 world. Is that your question?
 12 Q. (Continuing, by Mr. Ramer) My question is --
 13 let's back up. We were talking about a
 14 distinction between core gender identity, as you
 15 put it, and a person's understanding of their
 16 gender identity, and I asked you what evidence
 17 do you have for this distinction between these
 18 two things where you say that core gender
 19 identity never changes, but understanding of
 20 gender identity can change, and it sounded like
 21 in your answer you were saying the evidence you
 22 have for that distinction and knowledge that
 23 core gender identity never changes comes from
 24 talking to patients and hearing their experience,
 25 and my question is if you are talking to

1 Q. (Continuing, by Mr. Ramer) Apart from talking to
 2 patients and hearing their experience, do you
 3 have any evidence to support the proposition
 4 that there is a concept of core gender identity
 5 that is distinct from a person's understanding
 6 of their gender identity?
 7 A. Well, I guess that would go back to the evidence
 8 that I've put forward with regards to the
 9 biologic underpinning. So if there is a
 10 biologic underpinning, then the -- so, for
 11 example, I referenced twin studies, right? So
 12 if identical twins are always concordant with
 13 something, with a trait, then that would be a
 14 mendelian trait inherited on a particular gene,
 15 so, for example, I think Huntington's disease is
 16 an example where if one identical twin has
 17 Huntington's disease, the other one must also
 18 have Huntington's disease because it's inherited
 19 on a one-to-one ratio on a particular gene, you
 20 have it or you don't. Then there is things that
 21 are completely unrelated to genetics and in that
 22 case identical twins would have the same
 23 likelihood of sharing that trait as fraternal
 24 twins, and then there is situations where
 25 identical twins are more concordant with a trait

1 than fraternal twins, but less than 100 percent
 2 of the time, and in those situations there seems
 3 to be something that is genetic that is
 4 biological, that is not a figment of our
 5 imagination, but a true biologic feature that is
 6 being described, and so if identical twins are
 7 more concordant with gender identity than
 8 fraternal twins, that would be a piece of evidence
 9 to support that gender identity itself is an
 10 immutable biologic feature or human characteristic.

11 Q. And so your opinion is that the twins study
 12 demonstrates that there is a concept of core
 13 gender identity that never changes, is that right?

14 MX. SWAMINATHAN: Objection,
 15 mischaracterizes the testimony and asked and
 16 answered.

17 A. I don't think it's as clear-cut as you put it.
 18 I think it's a piece of evidence to support the
 19 proposition that we're talking about.

20 Q. (Continuing, by Mr. Ramer) And is there any
 21 other evidence?

22 A. So other examples of biologic underpinning that
 23 I would put forward would include studies of the
 24 prenatal hormonal milieu contributing to gender
 25 identity development that we know that

1 individuals that have XX chromosomes that have
 2 congenital adrenal hyperplasia are exposed to
 3 higher than normal levels of testosterone in
 4 fetal life, that the majority of those
 5 individuals grow up and identify as girls and as
 6 women, but we have a growing understanding that
 7 there's a higher degree of gender identity
 8 difference in adult XX chromosome individuals
 9 who have congenital adrenal hyperplasia, which
 10 suggests that the brain may be organized in some
 11 way by our prenatal hormonal milieu towards
 12 gender identity, again, not as clear-cut as we
 13 might want when understanding a biologic human
 14 characteristic, but a piece of evidence to
 15 support the notion of an immutable biologic
 16 foundation of gender identity.

17 Q. Do you think we know that there is a core sense
 18 of gender identity that never changes?

19 MX. SWAMINATHAN: Objection to form,
 20 asked and answered.

21 A. I don't want to overplay my hand with respect to
 22 this. The understanding of the biology of gender
 23 identity or the strength of my understanding of
 24 gender identity as a biologic human characteristic,
 25 but I can suggest that the evidence supporting

1 the biologic underpinning matches my experience
 2 clinically where parents come to me and suggest,
 3 you know, there was nothing different about how
 4 we raised this child and it's clear to us that
 5 they have a difference in their gender identity,
 6 that that clinical experience matching the
 7 biologic data that I'm familiar with leads me to
 8 the conclusion that I've shared. I don't have a
 9 way to prove it further, but that's the evidence
 10 that I've presented in support of that notion.

11 MX. SWAMINATHAN: Counsel, do you think
 12 this is a good time to take a break?

13 MR. RAMER: I have one more question on
 14 this line.

15 MX. SWAMINATHAN: Okay. Thank you.

16 Q. (Continuing, by Mr. Ramer) You don't recall ever
 17 encountering a person where you discerned that
 18 their gender identity was something other than
 19 what the person understood their own gender to
 20 be, correct?

21 MX. SWAMINATHAN: Objection to form.

22 A. One more time please.

23 Q. (Continuing, by Mr. Ramer) You do not recall
 24 ever encountering a person where you discerned
 25 that their gender identity was something other

1 than what the person understood their own gender
 2 to be, correct?

3 MX. SWAMINATHAN: Same objection.

4 A. I don't think that's correct. I think that
 5 there's been situations where a young person may
 6 be expressing a difference in gender identity,
 7 but that in talking to the parents, there is
 8 concern that I've had about some ulterior motive
 9 to presenting that gender identity and that
 10 person hasn't met criteria for gender dysphoria,
 11 but generally that would be an exception.

12 Q. (Continuing, by Mr. Ramer) What do you mean that
 13 would be an exception?

14 MX. SWAMINATHAN: Objection, form.

15 A. That a person's stated gender identity would be
 16 different than what I believe their gender
 17 identity to be.

18 Q. (Continuing, by Mr. Ramer) Okay. Sorry. Just
 19 to wrap this up, I'd like to go to Shumer
 20 Exhibit 4 which is your deposition in K.C.
 21 Before turning to this, I'll ask you at your
 22 deposition in K.C. when you were asked, "Have
 23 you ever encountered a person where you discerned
 24 their gender identity to be something other than
 25 what that person understood their own gender

identity to be," you answered, "I don't know," correct?

MX. SWAMINATHAN: Objection to form.

A. I don't know if I answered I don't know.

Q. (Continuing, by Mr. Ramer) Okay. I'll go to Exhibit 4 and page 29 and at the bottom of page 29, line 23 there is a question that says, "Okay. And my question was, simply: Have you ever encountered a person where you discerned their gender identity to be something other than what that person understood their own gender identity to be?" Answer, "I don't know," correct?

MX. SWAMINATHAN: Objection to form.

A. Correct.

MR. RAMER: Time for a break?

VIDEOGRAPHER: Going off the record.

The time is 10:33.

(Recess 10:33 a.m. to 10:44 a.m.)

VIDEOGRAPHER: We're back on the record. The time is 10:44.

Q. (Continuing, by Mr. Ramer) Dr. Shumer, welcome back. You sometimes treat minor patients who have gender dysphoria with psychotherapy alone, correct?

MX. SWAMINATHAN: Objection to form.

A. I'm not a psychotherapist, so I don't treat anyone with psychotherapy myself, no.

Q. (Continuing, by Mr. Ramer) And during your deposition in Boe versus Marshall when you were asked, "And sometimes do you treat patients, minor patients with gender dysphoria with psychotherapy alone," you answered, "If that helps to address their gender dysphoria or if they otherwise are unable to receive hormonal interventions," correct?

MX. SWAMINATHAN: Objection to form.

A. If that was my answer, I meant that the patient is treated with psychotherapy alone, but not that I treat them with psychotherapy.

Q. (Continuing, by Mr. Ramer) Understood. And sometimes non-medical approaches such as psychotherapy are sufficient to resolve gender dysphoria, correct?

MX. SWAMINATHAN: Objection to form.

A. I'd suggest that if a patient is receiving psychotherapy and has resolution of gender dysphoria, then yes, they would not require any other intervention, and that could be possible.

Q. (Continuing, by Mr. Ramer) And you cannot name a study showing that psychotherapy without medical

intervention will fail to alleviate gender dysphoria, correct?

MX. SWAMINATHAN: Objection to form.

A. Well, of course there are studies that include patients that have gender dysphoria despite psychotherapy, so that clearly some patients have gender dysphoria despite psychotherapy, but not a specific study as you described it, no.

Q. (Continuing, by Mr. Ramer) And you provide puberty blockers to minors at least as young as nine years old, correct?

MX. SWAMINATHAN: Objection to form.

A. Yes.

Q. (Continuing, by Mr. Ramer) And a patient could receive puberty blockers during their first medical visit with you, correct?

A. The decision may be to prescribe the blockers at the first medical visit, but they're not receiving it at that visit per se.

Q. Understood. And you agree that a patient who is receiving pubertal suppression may experience distress due to the fact that the patient's peers are going through puberty but the patient is not, correct?

MX. SWAMINATHAN: Objection to form.

A. That's possible, especially if the pubertal suppression is occurring at an age at which most of their peers are progressing through puberty.

Q. (Continuing, by Mr. Ramer) And over 95 percent of minors who take puberty blockers to treat gender dysphoria proceed on to take cross-sex hormones, correct?

MX. SWAMINATHAN: Objection to form.

A. I'm not sure that I would agree with that number per se, but it is a significantly high percentage.

Q. (Continuing, by Mr. Ramer) How high are you talking?

A. You said above 95 percent?

Q. Correct.

A. I don't have any reason to dispute that number. I would say above 90 percent, but it's in the range where I would support the notion that the majority of patients that are prescribed pubertal suppression also meet criteria and choose to start hormones in later adolescence.

Q. I mean it's not just the majority. You would agree that if we're talking in the nineties for percentage, that is almost all of them, correct?

MX. SWAMINATHAN: Objection to form.

A. It's in the nineties, yeah.

1 Q. (Continuing, by Mr. Ramer) And you provide
2 cross-sex hormones to minors as young as 12
3 years old, correct?

4 MX. SWAMINATHAN: Objection to form.

5 A. I have.

6 Q. (Continuing, by Mr. Ramer) And a patient could
7 be prescribed cross-sex hormones during their
8 first medical visit with you, correct?

9 MX. SWAMINATHAN: Objection to form.

10 A. While that's true, that question is juxtaposed
11 next to the one that suggested that I have
12 prescribed hormones to someone as young as 12.
13 I would say that the patients that may be
14 eligible to receive hormones and that decision
15 is made in the first visit would not be 12, but
16 would be older, but, yes, the decision has been
17 made to start hormones after the first medical
18 visit with me which follows the assessment visit
19 with the mental health professionals on our team.

20 Q. (Continuing, by Mr. Ramer) What's the reason for
21 the distinction you're drawing between this
22 question about receiving cross-sex hormones
23 during the first medical visit and the providing
24 cross-sex hormones to minors as young as 12?

25 A. Well, I didn't want it to sound like I've seen a

1 patient that's 12 and then in the first visit I
2 prescribed testosterone and estrogen to them
3 because that wouldn't be true. In the rare
4 cases that a patient as young as 12 has been
5 eligible for hormonal intervention, it's been a
6 patient that I've known over the course of many
7 years who has been treated with pubertal
8 suppression first.

9 Q. And so you have never provided cross-sex
10 hormones to a minor as young as 12 years old
11 during their first medical visit with you, is
12 that what you're saying?

13 MX. SWAMINATHAN: Objection to form.

14 A. I provided -- a patient has been eligible for
15 and has been prescribed hormones in their first
16 visit with me, but those patients are older than
17 12. That would fulfill that answer, so, for
18 example, I've seen a patient who is 17 who has
19 met criteria for and been prescribed hormones in
20 the first medical visit with me, but I have not
21 seen a 12-year-old who meets that who I've
22 prescribed hormones after the first visit.

23 Q. (Continuing, by Mr. Ramer) What's the youngest
24 patient for which you've ever prescribed
25 hormones after the first visit?

1 A. I don't know the answer to that, but I would
2 imagine 14.

3 Q. Testosterone can have mood-elevating effects,
4 correct?

5 A. Well, that's not what I would necessarily -- how
6 I would necessarily describe testosterone. I
7 think that you could say that an adult man who
8 has low testosterone may note that he has lower
9 energy or decreased libido and when given
10 testosterone, those symptoms improve, but I
11 don't think that's exactly the way that you
12 described it.

13 Q. So testosterone can improve mood, correct?

14 A. That's a funny question for me to try to answer.
15 I don't think that you would -- you would never
16 say somebody has depression, so let's give them
17 testosterone, for example. That someone with
18 low testosterone may have symptoms related to
19 low testosterone that might include fatigue, and
20 that giving them testosterone would improve
21 their fatigue, and could that improve their
22 mood? Perhaps, but I don't think of
23 testosterone as a mood medication.

24 Q. And so then it wouldn't make sense to measure
25 the effect of testosterone on depression, right?

1 MX. SWAMINATHAN: Objection to form.

2 A. I guess I don't understand your question.

3 Q. (Continuing, by Mr. Ramer) What don't you
4 understand about it?

5 A. Could you ask it again? Maybe I just didn't
6 hear it correctly.

7 Q. I just asked based on what you were saying about
8 the relationship between testosterone and how
9 you would never prescribe it for depression
10 because that's not what it's thought of, and my
11 question is so then it would not make sense to
12 measure the effect of testosterone on depression,
13 correct?

14 MX. SWAMINATHAN: Objection to form.

15 A. I mean you could certainly measure the response
16 to depression by giving testosterone, but I
17 wouldn't expect it to improve it, so no, it
18 wouldn't make sense.

19 Q. (Continuing, by Mr. Ramer) And is the same true
20 of anxiety?

21 MX. SWAMINATHAN: Same objection.

22 A. Yes.

23 Q. (Continuing, by Mr. Ramer) If you thought that
24 prescribing someone testosterone, regardless of
25 a medical diagnosis, would improve their quality

1 of life, would you do it?

2 MX. SWAMINATHAN: Objection to form.

3 A. Only if there was some scientific basis for that
4 decision.

5 Q. (Continuing, by Mr. Ramer) Are there any examples
6 that you can provide of that phenomenon?

7 A. Sure. So there is debate in adult endocrinology
8 about whether postmenopausal women benefit from
9 a small amount of testosterone supplementation.

10 I'm not totally familiar with that literature,
11 but if I was an adult endocrinologist, I would
12 become familiar with that literature and then
13 have a discussion with women about the literature
14 and make an evidence-based decision around it.

15 I see patients with Klinefelter Syndrome with
16 low testosterone. There is a decision about
17 when to start the testosterone. A boy might
18 have a low normal testosterone level and the
19 decision is do we get the testosterone to bring
20 it up into the middle of the normal range. Do
21 we tolerate your low normal level, and we might
22 discuss the literature on that topic and discuss
23 the symptoms that the patient is having in
24 making that decision.

25 Q. And just to make sure we're on the same page, my

1 initial question to you was whether, regardless
2 of a medical condition -- let me back up.
3 Klinefelter Syndrome is a medical condition,
4 correct?

5 A. Yes.

6 Q. And my initial question was if you thought -- if
7 you thought prescribing someone testosterone,
8 regardless of a medical condition, would improve
9 their quality of life, would you do it?

10 MX. SWAMINATHAN: Objection to form.

11 A. Sorry. Could you say it one more time?

12 Q. (Continuing, by Mr. Ramer) If you thought
13 prescribing someone testosterone, regardless of
14 whether they're suffering from a medical
15 condition, would improve their quality of life,
16 would you do it?

17 MX. SWAMINATHAN: Same objection.

18 A. So I guess I would say again only if there was
19 medical literature to support that decision.

20 Q. (Continuing, by Mr. Ramer) If you have -- let me
21 back up. If there is a person who is transgender
22 but does not meet the criteria for a diagnosis
23 of gender dysphoria, but you have concluded
24 their quality of life would improve if they
25 medically transitioned, would you deny that

1 person treatment?

2 MX. SWAMINATHAN: Objection to form.

3 A. I don't think that there would be a situation
4 where someone that identifies as transgender who
5 would benefit from treatment wouldn't also meet
6 the diagnostic criteria for gender dysphoria.

7 Q. (Continuing, by Mr. Ramer) So you think it would
8 be impossible for somebody -- let me start again.
9 You think it would be impossible for there to be
10 a patient who is transgender, does not suffer
11 from clinically significant distress, but their
12 quality of life would improve through medical
13 transition?

14 MX. SWAMINATHAN: Objection,
15 mischaracterizes the testimony.

16 A. If they really had clinical improvement on
17 testosterone, my thinking is that there was
18 distress or it treated something that led to
19 this improvement, so is it impossible? I don't
20 like to speak in absolutes, but from my experience,
21 I would expect that if someone has benefit from
22 testosterone from a gender perspective, then
23 they have gender dysphoria.

24 Q. (Continuing, by Mr. Ramer) Just to make sure I
25 understand that last part, you said if someone

1 would obtain benefit from taking testosterone as
2 part of a medical transition, then they have
3 gender dysphoria?

4 MX. SWAMINATHAN: Objection to form.

5 A. I don't think that that would be -- that wouldn't
6 be a way to diagnose gender dysphoria, but what
7 I'm saying is that if a person benefits, the
8 person has benefited from testosterone for the
9 purpose of medical transition, I can't think of
10 a situation where that person wouldn't have had
11 gender dysphoria. Now, I guess you're asking
12 about clinical distress, and so could there be a
13 situation where a person doesn't feel clinical
14 distress, but they feel even better on the
15 testosterone from a gender perspective perhaps,
16 I think that's possible. In pediatrics I have
17 to rely on the evidence, and so as a pediatric
18 endocrinologist in a field that clearly there's
19 a lot of controversy and discussion, I do feel
20 strongly that a young person under 18 with a
21 medical intervention on the table does need to
22 meet the clinical criteria for gender dysphoria
23 in order to qualify. Simply saying I don't have
24 distress, but I would feel better if I started
25 testosterone would not be sufficient for me to

1 prescribe.

2 Q. (Continuing, by Mr. Ramer) But isn't it your
3 opinion that improving a patient's quality of
4 life is more important than resolving the
5 patient's gender dysphoria?

6 MX. SWAMINATHAN: Objection,
7 mischaracterizes the testimony.

8 A. Perhaps, but the data that we're talking about
9 that we're relying on to suggest that
10 gender-affirming care is safe and effective is
11 based upon a diagnosis of gender dysphoria, so
12 if I'm treating someone without that diagnosis,
13 then I'm being hypocritical and I'm treating
14 someone without evidence base to support me.

15 Q. (Continuing, by Mr. Ramer) And you said perhaps,
16 and I'd just like to make sure we get a clear
17 answer on this. It is your opinion that
18 improving quality of life is more important than
19 resolving gender dysphoria, correct?

20 MX. SWAMINATHAN: Objection, asked and
21 answered.

22 A. Well, I think that if we're talking about the
23 bigger picture of someone's life, you know,
24 would you ask someone how are you or how is your
25 gender dysphoria? You would ask someone how are

1 you because gender dysphoria impairs your quality
2 of life and it's ultimately your quality of life
3 that you're trying to improve, that you improve
4 gender dysphoria in order to help someone to
5 meet their full potential as a person to have a
6 happy healthy productive life, so that's the
7 most important end outcome. The proximal
8 outcome is improvement in gender dysphoria.

9 Q. (Continuing, by Mr. Ramer) But you would agree
10 that when assessing the potential benefit of
11 hormone therapy for treatment of gender
12 dysphoria, quality of life is a separate outcome
13 from reduced gender dysphoria, correct?

14 MX. SWAMINATHAN: Objection.

15 A. Yes, those are both possible outcomes that you
16 could measure and our outcomes that people have
17 measured in some of the articles that are in
18 this field, that one of the questions when
19 thinking about safety and efficacy data in this
20 field is what is the outcome measure that we
21 should be talking about? Is it reduction in
22 gender dysphoria? Is it reduction in co-occurring
23 depression or anxiety or suicidality? Is it
24 reduction in completed suicide? Is it reduction
25 in -- is it improvement of quality of life? Is

1 it improvement in appearance congruence, and I
2 don't think there's an easy answer to that
3 question, so what we do have is we have a
4 collection of outcomes that we can measure, and
5 as a clinician, I'm thinking to myself, you
6 know, what do I know about the clinical question
7 that I have sitting in front of me, whether or
8 not this patient would benefit from testosterone,
9 for example. Well, I know this study looked at
10 these outcomes and this other study looked at
11 these other outcomes and I know that if there is
12 likely an improvement in appearance congruence
13 from starting testosterone, that there is likely
14 a reduction in gender dysphoria, there is likely
15 an improvement in suicidality, but I know those
16 from different studies looking at different
17 outcome measures and putting all of those things
18 together.

19 Q. (Continuing, by Mr. Ramer) And if you have on
20 the one hand the outcome measure of reducing
21 gender dysphoria and on the other hand the
22 outcome measure of improving quality of life, in
23 your opinion, you would prefer improving quality
24 of life over reducing gender dysphoria, correct?

25 MX. SWAMINATHAN: Objection to form.

1 A. I think ultimately improving quality of life is
2 more meaningful than outcome measure to me, but
3 it's much harder to measure. Well, I wouldn't
4 say it's much harder to measure, but they both
5 have challenges in measurement, but that
6 ultimately, yes, I agree that improved quality
7 of life would be an excellent outcome measure
8 and that the improvement in gender dysphoria in
9 and of itself is more proximal to the more
10 distal and more important outcome of improved
11 life in general.

12 Q. (Continuing, by Mr. Ramer) But the reducing
13 gender dysphoria is the entire purpose of
14 providing medicalized transition, right?

15 MX. SWAMINATHAN: Objection to form.

16 A. I think the purpose of providing the care is all
17 of the things that we have been talking about.
18 I would hope that gender dysphoria would be
19 reduced, quality of life would be improved.

20 Q. (Continuing, by Mr. Ramer) And if you were
21 picking one over the other, you would prefer
22 quality of life over reduced gender dysphoria?

23 MX. SWAMINATHAN: Objection,
24 mischaracterizes the testimony.

25 A. Why would I have to pick one over the other

1 though is the question. I think that I've never
2 seen someone who has -- if someone had improved
3 quality -- improved gender dysphoria, but
4 reduced quality of life, then something else is
5 affecting the quality of life at the same time
6 that needs to be addressed, right?

7 Q. (Continuing, by Mr. Ramer) Have you ever seen a
8 study where it showed improved quality of life,
9 but did not show reduction in gender dysphoria
10 from medicalized transition?

11 MX. SWAMINATHAN: Objection to form.

12 A. I don't think that I can give you a name of a
13 study per se, but like, for example, the Chen
14 study I believe, I'm not sure that gender
15 dysphoria outcome is the primary focus of that
16 study. It's appearance congruence is one of
17 their primary outcomes, that certainly there are
18 studies that choose more distal outcome measures
19 and studies that choose gender dysphoria as an
20 outcome measure in the literature, yes.

21 Q. (Continuing, by Mr. Ramer) And so when you say
22 why would I have to choose, if you're following
23 the evidence and you have studies that only
24 report on improved quality of life, but do not
25 report on reduced gender dysphoria, that would

1 be an example where you have to decide whether
2 you're justified in relying on that study as
3 evidence to provide the intervention, correct?

4 MX. SWAMINATHAN: Objection to form.

5 A. I'm not sure if this answers your question, but
6 let's say in the hypothetical universe it was
7 clear that by providing gender-affirming care,
8 gender dysphoria worsened and quality of life
9 improved. I would think that then you could say
10 that gender-affirming care is safe and
11 efficacious with the most important outcome
12 being improvement in quality of life. In the
13 real world that isn't what we actually see. We
14 see that the improvements in gender dysphoria
15 and other quality of life outcome measures tend
16 to go hand in hand and, of course, as you know,
17 we don't have a randomized control trial where
18 we can demonstrate that the medical intervention
19 outcome or the medical intervention itself has
20 both improved quality of life and gender dysphoria
21 in a certain mathematical ratio, but from the
22 library of evidence that we do have, those
23 positive outcomes tend to improve in parallel.

24 Q. (Continuing, by Mr. Ramer) When you say in the
25 real world, as you put it, you see a reduction

1 in gender dysphoria, how are you measuring that?

2 A. I'm measuring it myself in the clinic, right,
3 that I'm seeing patients and seeing their
4 improvements over time and the literature
5 evaluates it. Some literature evaluates gender
6 dysphoria changes directly and others measure
7 other outcomes.

8 Q. Sorry. Can you explain that last part?

9 A. Some studies of course use gender dysphoria as
10 the outcome of interest and others don't.
11 Others use other quality of life or mental
12 health outcomes.

13 Q. Ultimately the use of puberty blockers and
14 cross-sex hormones for medicalized transition is
15 to treat gender dysphoria, correct?

16 A. Yes.

17 Q. And when you prescribe puberty blockers, do you
18 require a bone density scan for your patients?

19 A. Not uniformly, no.

20 Q. And is it fair to say you are not particularly
21 concerned about bone density as a side-effect
22 for these interventions?

23 MX. SWAMINATHAN: Objection to form.

24 A. I would be quite concerned if someone had risk
25 factors for low bone density and was going to be

1 using GnRH agonists for an extended period of
2 time past 16, for example. I think that there
3 would be consequences to that from a bone
4 density perspective, but in general a patient
5 using GnRH agonists for a more limited period of
6 time extending puberty to the outer ends of what
7 a normally timed puberty would be, I'm less
8 concerned in those scenarios.

9 Q. (Continuing, by Mr. Ramer) And what's the basis
10 for being less concerned in those scenarios?

11 A. A combination of understanding of bone physiology
12 and puberty and a review of the related literature.

13 Q. With respect to bone density, what you're actually
14 concerned about is the risk of fractures, correct?

15 A. Yes.

16 Q. And that risk would most often manifest itself
17 years down the line, right?

18 MX. SWAMINATHAN: Objection to form.

19 A. Right.

20 Q. (Continuing, by Mr. Ramer) And not just years,
21 but decades down the line, right?

22 A. That would be a concern, yes. If someone has at
23 20, if they have a low bone marrow density, then
24 the concern is less that they're going to have a
25 fracture today, but they would be at higher risk

for osteoporosis later.

Q. And in your clinic you do not actually use a form to help you obtain informed consent, correct?

MX. SWAMINATHAN: Objection to form.

A. I don't use a form that the patient and parents physically sign, no.

Q. (Continuing, by Mr. Ramer) And maybe this is implied in your answer, but do you just do it all from memory when you're providing the risks and benefits of the interventions?

MX. SWAMINATHAN: Objection to form.

A. Similar to how I obtained informed consent with medical treatments in diabetes clinic and in general endocrinology clinic, I review the rationale for using the medication, the intended potential benefits, the potential side-effects, the potential risks, things to call me if they notice, the plans for follow-up and, yes, I don't read that from a script. It's something that I've incorporated into my doctor/patient conversation with patients that I'm also able to individualize to each patient for what is relevant to that particular patient's clinical situation.

Q. (Continuing, by Mr. Ramer) And what are the

potential risks associated with using testosterone as a treatment for gender dysphoria?

A. I'd start by saying that when we're using testosterone as a medication, for anyone the goal is to bring the testosterone level up to the normal male range for age and we know what that range is and we know how much testosterone tends to bring someone's testosterone level up into that range. If someone has a normal male level of testosterone, then you would expect similar risks that other men would have pertaining to having a normal male level of testosterone, so an example that I like to use that I think is easy to understand is going bald, that a person who never takes testosterone who is assigned a female at birth would likely never go bald. On testosterone I would anticipate that that individual would go bald at the same risk as other men in their family and that I wouldn't expect him to go bald in his twenties, but maybe if everyone in his family goes bald in their fifties, then he would expect that as well, and that's because going bald is a combination of genetics and a sustained over time normal male testosterone level. Going bald

is arguably not a medical problem, but more of a vanity thing, and so if we think about the fact that men do have different risks for other medical problems that you would put them, put trans men on testosterone in that male category, you know, an example that is relevant to my clinical practice is polycythemia, or having an elevated red blood cell count, that if someone is on too much testosterone, that would be a concern, so that's something that we have to measure. As part of this conversation, I would also then point out that having an excessively high testosterone level is also not healthy, that if you think of a baseball player who is abusing testosterone to hit more home runs, that that baseball player would have a testosterone in the superman level and would be at higher risk for things like high blood pressure, high blood sugar, acne, and that that wouldn't be healthy for him or any other man, so by measuring the testosterone level and for screening things that other men need screening for by measuring things like the CBC to screen for polycythemia, then it would be monitoring and minimizing those risks.

Q. Do you agree that taking estrogen likely increases the risk of blood clots?

MX. SWAMINATHAN: Objection to form.

A. Yes, that's an example that I used when I'm talking about estrogen and potential side-effects, that women have higher blood clot risk than men, that you hear that women that take birth control are at higher risk for blood clots. Now, remember that estrogen and birth control is given a super-physiologic level, meaning higher than normal, and that when we're using estrogen in a trans woman, we're aiming for a normal amount of estrogen. We're using 17 beta Estradiol instead of Ethinylestradiol in birth control, which has a higher blood clotting risk profile, all that to say the answer to your question is yes, that estrogen imparts a higher risk for blood clots than if a trans woman never took the estrogen in the first place.

Q. (Continuing, by Mr. Ramer) And you said for a transgender female, you're aiming for normal ranges, but for that patient, the level of estrogen would, in fact, be super-physiologic, correct?

MX. SWAMINATHAN: Objection to form.

- 1 A. A normal range if that patient were assigned
2 female at birth, so the normal range for a
3 female is the range that we're aiming for which
4 is, yes, higher than normal for someone assigned
5 male at birth.
- 6 Q. (Continuing, by Mr. Ramer) So in the context of
7 providing estrogen as a treatment for gender
8 dysphoria, you are obtaining a super-physiologic
9 level of estrogen for that patient, correct?
- 10 MX. SWAMINATHAN: Objection to form.
- 11 A. Yes, but I would also just point out when I use
12 the word super-physiologic, I was talking about
13 super-physiologic for either a female or a male,
14 right, that above, you know, would you hypothesize
15 that if we have a trans woman with an estrogen
16 level of 100, a cis woman with an estrogen level
17 of 100, and a trans woman or a cis woman with an
18 estrogen level of 500, which would you expect to
19 have the higher risk for blood clots, you would
20 expect the one with the level of 500, which is
21 super-physiologic for either sex and that would
22 be correct. That person would have the highest
23 risk for blood clots. Would the trans women
24 with the estrogen level of 100 have a higher
25 risk for blood clots than the cis woman or the

- 1 A. Yes.
- 2 Q. (Continuing, by Mr. Ramer) And do the Endocrine
3 Society guidelines provide guidance on that
4 process of scaling up?
- 5 A. The Endocrine Society guidelines don't go into
6 granular detail about how to prescribe what
7 doses, what levels, et cetera. It provides more
8 of an overview of the structure of care.
- 9 Q. And so where are you getting the dosing for the
10 scaling up? From the UCSF guidelines?
- 11 A. Well, I think as a pediatric endocrinologist, I
12 induce male puberty in patients for a variety of
13 reasons, and so it's not that complicated to do,
14 and so, yes, there is guidance in the UCSF
15 standard of care, or I don't know what they call
16 it, the UCSF website. Rosenthal, et al has
17 published an article that goes into more detail
18 about dosing, but also just my training as a
19 pediatric endocrinologist allows me to know how
20 to do that.
- 21 Q. And using testosterone or estrogen to treat
22 gender dysphoria may increase a person's risk
23 for infertility, correct?
- 24 MX. SWAMINATHAN: Objection to form.
- 25 A. Yes.

- 1 person assigned female at birth with an estrogen
2 level of 100? I don't think so, based on my
3 understanding of the literature.
- 4 Q. (Continuing, by Mr. Ramer) But the point is that
5 increasing estrogen increases the risk of blood
6 clots, correct?
- 7 MX. SWAMINATHAN: Objection to form.
- 8 A. Yes.
- 9 Q. (Continuing, by Mr. Ramer) And when you are
10 prescribing cross-sex hormones as a treatment
11 for gender dysphoria in adolescents, is the
12 range you are using based on the normal range
13 for individuals the same age as the patient or
14 do you use adult ranges?
- 15 MX. SWAMINATHAN: Objection to form.
- 16 A. So you're trying to mimic the normal timing and
17 tempo of puberty, so you would start with an
18 amount of hormone that's based on the earlier
19 stages of puberty, and then advance to higher
20 levels to mimic the normal ranges of adulthood
21 over the course of a couple years.
- 22 Q. (Continuing, by Mr. Ramer) And the point is
23 you're starting at lower doses and then you
24 scale it up to replicate puberty, is that right?
- 25 MX. SWAMINATHAN: Objection to form.

- 1 Q. (Continuing, by Mr. Ramer) And do you know
2 whether the use of testosterone as a treatment
3 for gender dysphoria impairs the ability of the
4 patient to later breastfeed a child?
- 5 A. That's possible.
- 6 Q. But do you know?
- 7 A. Do I know whether testosterone will -- I'm
8 sorry. Maybe ask again.
- 9 Q. I'll rephrase it. I think it was a little
10 unclear. Have you ever investigated whether the
11 use of testosterone as a treatment for gender
12 dysphoria impairs the ability of the patient to
13 breastfeed?
- 14 MX. SWAMINATHAN: Objection to form.
- 15 A. No.
- 16 Q. (Continuing, by Mr. Ramer) Have you ever been
17 asked about that before?
- 18 A. I don't believe so.
- 19 Q. Okay. I'd like to go to Exhibit 11, Shumer
20 Exhibit 11 which is your testimony in Koe and
21 I'd like to go to page 52, and I will ask you to
22 read lines three through eight and let me know
23 when you've finished reading that.
- 24 A. Page 53 you said?
- 25 Q. On page 52, lines three through eight.

1 A. Okay. Thank you. Okay.
 2 Q. And do you think that during this hearing this
 3 was the first time you had ever thought about
 4 that question?
 5 MX. SWAMINATHAN: Objection to form.
 6 A. Do I think during the Koe hearing that was the
 7 first time I ever thought about it?
 8 Q. (Continuing, by Mr. Ramer) Correct.
 9 A. I'm not sure.
 10 Q. After you were asked this question and you said
 11 you don't know if there's data to support that
 12 or not, did you ever try to go out and look up
 13 the answer?
 14 A. Not that I recall.
 15 Q. If a patient has their puberty suppressed and
 16 then proceeds on to take cross-sex hormones,
 17 that patient will be infertile, correct?
 18 MX. SWAMINATHAN: Objection to form.
 19 A. If a patient had pubertal suppression followed
 20 by hormones and now is an adult and is asking --
 21 is interested in using their body to create a
 22 fetus, my advice would be to discontinue
 23 medications, allow for endogenous puberty to
 24 occur, and then attempt fertility. Do I have
 25 evidence to suggest that a person has used

1 MX. SWAMINATHAN: Objection to form.
 2 A. Correct.
 3 Q. (Continuing, by Mr. Ramer) And so a transgender
 4 female would experience a permanently lower
 5 voice as a result of this, correct?
 6 MX. SWAMINATHAN: Objection to form.
 7 A. Yes.
 8 Q. (Continuing, by Mr. Ramer) And a transgender
 9 male would experience permanent breast enlargement
 10 that would require surgery to then transition
 11 back, right?
 12 MX. SWAMINATHAN: Objection to form.
 13 A. I'm sorry.
 14 Q. (Continuing, by Mr. Ramer) So you have a
 15 transgender male who has gone through pubertal
 16 suppression, proceeded to cross-sex hormones,
 17 wants to go through the process that you are
 18 describing in paragraph 80. This transgender
 19 male would withdraw from hormones and allow
 20 pubertal progression, and as part of this you
 21 expect the individual's breasts to grow as they
 22 would during female puberty, correct?
 23 MX. SWAMINATHAN: Objection to form.
 24 A. Yes.
 25 Q. (Continuing, by Mr. Ramer) And so if the patient

1 pubertal suppression in Tanner Stage 2 followed
 2 by hormones and then as an adult discontinue
 3 medications and then achieved a pregnancy? I
 4 don't. I don't know that that's been attempted,
 5 but that would be my suggestion to a person that
 6 asked that question.
 7 Q. (Continuing, by Mr. Ramer) And this suggestion
 8 is what in your declaration, Exhibit 1, what you
 9 are talking about at page 22 paragraph 80, right?
 10 MX. SWAMINATHAN: Objection to form.
 11 What did you say, page 24?
 12 MR. RAMER: Page 22, paragraph 80.
 13 A. Yes.
 14 Q. (Continuing, by Mr. Ramer) And just so I understand
 15 this process, in paragraph 80, the penultimate
 16 sentence says, "If attempting fertility after
 17 previous treatment with GnRHa followed by
 18 hormone therapy is desired, an adult patient
 19 would withdraw from hormones and allow pubertal
 20 progression," and that's what we were just
 21 discussing, right?
 22 A. Yes.
 23 Q. And to do this, a transgender female -- let me
 24 back up. To do this, you're basically undoing
 25 your transition, correct?

1 goes through this process and then wants to live
 2 in accordance with the patient's male gender
 3 identity, that patient would have to have chest
 4 surgery, correct?
 5 MX. SWAMINATHAN: Objection to form.
 6 A. If they wanted, if in this hypothetical they
 7 wanted a masculine-appearing chest, yes.
 8 Q. (Continuing, by Mr. Ramer) And do you tell your
 9 transgender male patients that if they proceed
 10 from pubertal suppression to cross-sex hormones,
 11 the only way they'll be able to have biological
 12 children and live in their gender identity is by
 13 eventually having chest surgery?
 14 MX. SWAMINATHAN: Objection to form.
 15 A. So I'd have a very serious and in-depth
 16 conversation about this topic, not exactly the
 17 way that you just phrased it, but that if you
 18 can imagine that a young person who has been
 19 living his whole life as a boy, that knows
 20 himself as a boy and is now starting to develop
 21 breast buds, that he goes to school every day
 22 with everyone knowing him as a boy, not knowing
 23 that he was assigned female at birth and that
 24 you're talking to him and his parents about the
 25 fact that there is a way to continue to allow

1 him to live the life that he's currently living,
 2 but that he could never have a pregnancy, that
 3 he could never have a pregnancy in his body
 4 unless he undid all these things that we're
 5 talking about, the most common response that I
 6 would get is, "Why the heck would I ever want a
 7 pregnancy in my body? I'm a boy," and that the
 8 value that he would have on his fertility
 9 potential as a uterus-carrying person is not the
 10 same as other people might expect a person to
 11 value fertility or biologic fertility, that his
 12 value of fertility and his parents' understanding
 13 of his value of his fertility and their value of
 14 his fertility might look really different than
 15 you might imagine and that when, if I suggest --
 16 when I'm suggesting that the prospect of
 17 blockers plus testosterone could have long-term
 18 implications on fertility, the answer that I
 19 might hear is, "Good. I would never want to
 20 have a biological child using my body." That's
 21 not uniformly the case, and if there was a
 22 situation where a person didn't feel that way,
 23 this conversation around fertility might very
 24 well lead them to make a different decision
 25 about starting the blockers, but you don't know

1 time such that I wish I didn't transition and
 2 make it harder for me to achieve biologic
 3 fertility, that in my experience some people
 4 value having children, some people don't. Some
 5 people value those children to have a biologic
 6 relationship to them, some don't, and some
 7 people are able to have biologic children and
 8 some people aren't, but the discussion around
 9 fertility and changing in values over time
 10 hasn't presented a situation where someone says
 11 to me all of the medical decisions I've made to
 12 this point, I wish I could undo them so that I
 13 could start my family in a different way than I
 14 can in actuality today.
 15 Q. (Continuing, by Mr. Ramer) Just to be clear, you
 16 do not have any former patients who are in their
 17 thirties yet, do you?
 18 A. I don't take care of patients that are in their
 19 thirties, no.
 20 Q. And my question was you do not have any former
 21 patients who are now in their thirties, correct?
 22 A. Correct.
 23 Q. And in your deposition in Voe versus Mansfield
 24 when you were asked, "In your practice have you
 25 ever encountered a minor who does not value

1 what someone's, what a patient's and family's
 2 attitude around this topic would be until you
 3 have an in-depth conversation around it. You
 4 might ask is that feeling about fertility
 5 allowed to change over time and I would of
 6 course say yes too, and that's something that I
 7 would talk to with the patient and the parents
 8 and if at the end of the conversation we're
 9 making a clear-eyed decision about really
 10 important topics that we get to have in gender
 11 clinic, but, hey, we get to have those same
 12 conversations in other areas of pediatrics too
 13 and that's what pediatricians do with parents
 14 and families as part of our job.
 15 Q. (Continuing, by Mr. Ramer) And in your practice
 16 you've encountered patients who did not value
 17 having children when they were younger, but then
 18 valued it more as they got older, correct?
 19 MX. SWAMINATHAN: Objection to form.
 20 A. So when I say value having -- when you say value
 21 having children, I'm assuming that you mean
 22 biologic children, and there is -- I would say
 23 that I haven't had a situation where someone has
 24 said I regret having done X, Y or Z because my
 25 desire for biologic children has changed over

1 having children when they're younger, but then
 2 values it more as they get older," you answered
 3 yes to that question, correct?
 4 MX. SWAMINATHAN: Objection to form.
 5 Can we put the document in front of Dr. Shumer?
 6 Q. (Continuing, by Mr. Ramer) No, the question is,
 7 before the document, my question is was that
 8 your answer in that deposition?
 9 A. It's have to review the document.
 10 Q. Okay. Then we'll go to Exhibit 9 which is the
 11 Voe transcript and we'll go to page 198, and on
 12 page 198, line seven, question, "In your
 13 practice, have you ever encountered a minor who
 14 does not value having children when they're
 15 younger, but then values it more as they get
 16 older?" Answer, "I would say -- I would say yes
 17 to that question," correct?
 18 A. Yes.
 19 MX. SWAMINATHAN: Objection to form.
 20 A. Yes.
 21 MR. RAMER: I think we have been going
 22 about an hour. I don't know if this is a good
 23 time to break for lunch.
 24 THE WITNESS: Sure.
 25 MX. SWAMINATHAN: Sure.

1 VIDEOGRAPHER: Going off the record.
2 The time is 11:36.

3 (Recess 11:36 a.m. to 12:18 p.m.)

4 VIDEOGRAPHER: We're back on the
5 record. The time is 12:18.

6 Q. (Continuing, by Mr. Ramer) Good afternoon,
7 Dr. Shumer. Welcome back.

8 A. Thank you.

9 Q. Picking up sort of where we left off, my first
10 question is you have never studied the literature
11 regarding mental health problems in adults
12 resulting from sterility, correct?

13 MX. SWAMINATHAN: Objection to form.

14 A. Correct.

15 Q. (Continuing, by Mr. Ramer) And you do not know
16 the likelihood of whether a natal male who goes
17 through puberty suppression at Tanner Stage 2
18 and proceeds to cross-sex hormones will ever
19 achieve an orgasm, correct?

20 MX. SWAMINATHAN: Objection to form.

21 A. Correct.

22 Q. (Continuing, by Mr. Ramer) In your opinion when
23 nine and ten-year-olds begin puberty suppression,
24 do you think they fully appreciate what it will
25 mean to not be able to have children in later life?

1 MX. SWAMINATHAN: Objection to form.

2 A. I can tell you that they're able to have an
3 age-appropriate conversation about the topic.
4 The way that a nine-year-old discusses fertility
5 topics and a 29-year-old are of course different,
6 but the topic is something that we discuss, we
7 can discuss, we do discuss at an age appropriate
8 level in this situation and in other areas of
9 medicine that require challenging conversations
10 that have to happen at an age-appropriate level
11 for different reasons.

12 Q. (Continuing, by Mr. Ramer) And my question is do
13 you think they fully appreciate what it will mean
14 to not be able to have children in later life?

15 MX. SWAMINATHAN: Objection to form.

16 A. I think they fully appreciate it in an
17 age-appropriate way.

18 Q. (Continuing, by Mr. Ramer) Do you think any nine
19 and ten-year-old can fully appreciate what it
20 will mean to not be able to have children in
21 later life?

22 MX. SWAMINATHAN: Objection to form.

23 A. By not being able to have children, you mean
24 biologic children that they produce with their
25 own sperm or eggs, they are able to understand

1 what that means and conceptualize that in their
2 life at their age, and whether that's fully
3 appreciating according to your definition, they
4 have an age-appropriate understanding that we're
5 able to discuss in clinic.

6 Q. (Continuing, by Mr. Ramer) And switching gears a
7 little bit to talk about precocious puberty,
8 with respect to precocious puberty, the use of
9 puberty blockers in that context would be ceased
10 somewhere between ages eight and 13, correct?

11 MX. SWAMINATHAN: Objection to form.

12 A. Yes.

13 Q. (Continuing, by Mr. Ramer) And you're not aware
14 of any long-term studies of individuals with
15 precocious puberty who have their blockers taken
16 out at ages 15 or 16, correct?

17 MX. SWAMINATHAN: Objection to form.

18 A. Correct.

19 Q. (Continuing, by Mr. Ramer) And the standard
20 course of treatment for precocious puberty does
21 not present significant risks to fertility,
22 correct?

23 A. Correct.

24 Q. And you agree that the goals of using puberty
25 blockers to treat gender dysphoria are different

1 from the goals of using puberty blockers to
2 treat precocious puberty, right?

3 MX. SWAMINATHAN: Objection to form.

4 A. Right. The proximal goal of stopping the
5 production of pituitary hormones is the same,
6 but the more distal goals of treatment are
7 different.

8 Q. (Continuing, by Mr. Ramer) Because with precocious
9 puberty, the plan is that the patient would
10 eventually go through endogenous puberty, correct?

11 MX. SWAMINATHAN: Objection to form.

12 A. Yes.

13 Q. (Continuing, by Mr. Ramer) And that is not the
14 case with medicalized transition, correct?

15 MX. SWAMINATHAN: Objection to form.

16 A. While we discuss that the majority of patients
17 do not, the goal is not that the patient will
18 never go through puberty. The goal is to
19 prevent the progression of an unwanted puberty
20 now and then delay decision-making about the
21 next step in care.

22 Q. (Continuing, by Mr. Ramer) And when you say the
23 majority, we're talking about that number in the
24 90 percent, correct?

25 A. Yes.

Q. You do not know whether the evidence base supporting medical gender transition of adolescents is greater or lesser than the evidence base supporting treatments of precocious puberty, correct?

MX. SWAMINATHAN: Objection to form.

A. Correct.

Q. (Continuing, by Mr. Ramer) You agree that puberty blockers are not FDA-approved for treating gender dysphoria, correct?

MX. SWAMINATHAN: Objection to form.

A. Yes.

Q. (Continuing, by Mr. Ramer) And they're not FDA-approved in part because the FDA has not received satisfactory data demonstrating safety and efficacy, correct?

MX. SWAMINATHAN: Objection to form.

A. I don't think they received satisfactory or unsatisfactory data. I don't have any knowledge that a drug company has provided any effort to make their drug FDA-approved for the treatment of gender dysphoria.

Q. (Continuing, by Mr. Ramer) But for the FDA to approve a drug for a particular indication, they require satisfactory data demonstrating safety

and efficacy, correct?

A. Yes. The reason that I answered the way I answered is just because I felt like the question maybe presupposed that there was some data that was unsatisfactory, but I don't believe that to be the case either.

Q. And when the FDA is considering whether to approve a drug for an indication, that drug will be studied in animal models, correct?

A. Yes.

Q. And why is that?

A. So when a new drug is invented, the drug has to be understood from a safety perspective, from a pharmacokinetics perspective, and so by using a drug, a novel drug in an animal, if there is significant health impacts that would make a human study inappropriate, then that will be determined in the animal study, and also I think that in animal studies you're trying to choose an animal with a similar physiology related to the way the medication works to try to gain insight into whether the outcomes that you might be choosing to measure in a human study are plausible.

Q. Does pubertal suppression affect mental

development that would otherwise be taking place during endogenous puberty?

MX. SWAMINATHAN: Objection to form.

A. So I'll give an answer as a non-neuroscientist, and this answer is going to sound like it's coming from a pediatric endocrinologist because I am a pediatric endocrinologist. I see patients that have delayed puberty and patients with delayed puberty have, you know, maybe a 14-year-old body and a 14-year-old brain, but they haven't gone through puberty yet and they're not scoring lower on I.Q. tests or they're not getting lower math grades, that we don't consider delayed puberty a risk factor for cognitive impairment, and so in that way, I don't think of puberty hormones organizing the brain in a way for cognition in the way that I've sort of framed it. You know, during puberty we have emotional development in different ways granted, and whether or not it's the hormones themselves or simply the chronologic age that allows for that emotional development I think is unknown or maybe partially unknown, so to say that pubertal hormones have no impact on brain development, I can't make that statement, but I don't think

that there's evidence to suggest that the use of pubertal suppression is causing an absence of brain development in a way that's clinically significant.

Q. (Continuing, by Mr. Ramer) Do you say anything to your patients about a potential impact on brain development from puberty blockers?

A. Well, I might say something similar to what I just said in terms of emotional development. I think that if you think about the emotional development of someone who is going through the wrong puberty, the clinical experience I've had in that situation is that the emotional development of a girl developing a deeper voice and how that makes her withdraw from peers, withdraw from school and deteriorate from a mental health perspective is a higher risk to me than some hypothetical that we're talking about today with regards to some aspect of emotional development and puberty hormones, so I really think it's a balancing act of risks and benefits and those are the types of conversations that we have to have.

Q. And I understand what you're saying about emotional development. I think my question is

1 more about neurological development and the
 2 question is do you say anything to your patients
 3 about a potential impact on neurological
 4 development from puberty blockers?
 5 A. I don't have any data to support that notion, so
 6 it's not become part of my discussion, no.
 7 Q. And, Doctor, you've heard of Dr. Diane Chen,
 8 correct?
 9 A. Yes.
 10 Q. And she's an expert in the field of transgender
 11 medicine, correct?
 12 A. Yes.
 13 Q. And I think you actually cite one of her papers,
 14 right?
 15 A. Yes.
 16 MR. RAMER: You want to go off briefly?
 17 MX. SWAMINATHAN: Yes.
 18 VIDEOGRAPHER: We're going to go off
 19 the record. The time is 12:30.
 20 (Recess 12:30 p.m. to 12:31 p.m.)
 21 VIDEOGRAPHER: We're back on the record
 22 the time is 12:31.
 23 (Marked Exhibit No. 13.)
 24 Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've been
 25 handed what's been marked as Shumer Exhibit 13,

1 looking at Shumer Exhibit 13 and I'll first
 2 represent to you that there's some stray
 3 highlighting in the exhibit. That highlighting
 4 is not in the original document. I'd like to go
 5 to page 254 of this article and in the left
 6 column under the bold Discussion, the second
 7 sentence in that paragraph I'm going to read and
 8 first ask if I read it correctly. It says,
 9 "However, puberty is a major developmental process
 10 and the full consequences (both beneficial and
 11 adverse) of suppressing endogenous puberty are
 12 not yet understood." Did I read that correctly?
 13 A. Yes.
 14 Q. Do you agree that puberty is a major
 15 developmental process?
 16 A. Yes.
 17 Q. And do you agree that the full consequences of
 18 suppressing endogenous puberty are not yet
 19 understood?
 20 A. I think that as this article seems to point out,
 21 it's an area that more research is being done
 22 and that research will be helpful in
 23 understanding, so I agree with the statement.
 24 Q. And sticking with this exhibit, I'd like to go
 25 to page 249, and in the right column, the first

1 is that right?
 2 A. Yes.
 3 Q. And the first question is whether you've ever
 4 seen this article before?
 5 A. I don't recall seeing the article before.
 6 Q. Okay. I'd like to go to page 254 and I
 7 understand you have not seen the article, but
 8 there's just some concepts that are discussed in
 9 here that I want to get your reaction to.
 10 MX. SWAMINATHAN: Counselor, is this
 11 one of the exhibits to your enumerated topics
 12 you shared with us?
 13 MR. RAMER: No.
 14 MX. SWAMINATHAN: Do you want to take a
 15 minute to review or we can go off the record?
 16 THE WITNESS: I'd just like to read the
 17 abstract first.
 18 MR. RAMER: We can go off and take as
 19 long as he wants.
 20 VIDEOGRAPHER: Off the record. The
 21 time is 12:32.
 22 (Recess 12:32 p.m. to 12:34 p.m.)
 23 VIDEOGRAPHER: We're back on the record
 24 at 12:34.
 25 Q. (Continuing, by Mr. Ramer) And Dr. Shumer, we're

1 full paragraph, it's really just one long
 2 sentence, or actually I'll just read the first
 3 relatively long sentence and ask if I read it
 4 correctly. It says, "We employed a two-round
 5 Delphi procedure to obtain expert consensus
 6 regarding the most efficacious research design
 7 elements to address the following research
 8 question: What, if any, real-world impact does
 9 pubertal suppression have on transgender
 10 children's cognitive and neural development?"
 11 Did I read that correctly?
 12 A. Yes.
 13 Q. And the question there of what, if any, real
 14 world impact does pubertal suppression have on
 15 transgender children's cognitive and neural
 16 development, do you know the answer to that
 17 question?
 18 A. I don't know the answer. I have opinions on the
 19 subject that I've expressed, but I don't know
 20 the answer more than that.
 21 Q. Do you agree that learning the answer to that
 22 question could have important clinical
 23 implications?
 24 MX. SWAMINATHAN: Objection to form.
 25 A. Yes.

Q. (Continuing, by Mr. Ramer) And sticking with this document, Shumer Exhibit 13, I'd like to go to page 248 and in the left column the last paragraph that starts there starts with the word "considerable," and I'm looking at the second sentence, and I'm first going to read it and ask if I read it correctly with the caveat that I will certainly mispronounce some words in here. It says, "Animal studies demonstrate pubertal hormones exert broad neuronal influence, including effects on neurogenesis, differentiation, apoptosis, dendritic branching, spine density and regional gray and white matter volumes." Did I read that correctly?

A. Yes.

Q. And why do you think the authors are mentioning studies on animals?

MX. SWAMINATHAN: Objection to form.

A. I imagine to point out that we know more about certain aspects of physiology in animals because we're able to do more invasive studies related to brain development in animals and perhaps some of the things we learned from animals can be extrapolated to humans.

Q. (Continuing, by Mr. Ramer) And so like we were

discussing earlier in the context of FDA, the FDA, excuse me, medical research often begins by studying the effects of treatment on animals like rodents, for example, right?

MX. SWAMINATHAN: Objection, form.

A. Yes.

Q. (Continuing, by Mr. Ramer) And do you agree that ethical principles often require experiments to be done on animals before they are done on humans?

A. Sometimes.

Q. In what situations would it not be required?

A. Well, I guess in this context I'm thinking about whether you're implying that if a drug company say wanted to get a GnRH agonist approved for the treatment of gender dysphoria, if they would have to employ a mouse model first to learn something about cognitive development, and I don't know if that is your question, but I'm not sure that that would be true, but certainly sometimes you need to use mouse models before doing human subject research, and other times you might not. It would be dependent on the question you're being asked and the IRB's decision on the ethics of the study you're proposing.

Q. Sticking with this exhibit, I'd like to go to

page 253 and the right column, and the highlighting is actually sort of helpful. Part way down that column there's a sentence that begins with, "In addition." Do you see that?

A. Yes.

Q. And then in that sentence it says, "Studies in rodents show ovarian hormones, acting during puberty, program cognitive flexibility by exerting long-lasting effects on excitatory-inhibitory balance in the prefrontal cortex." Did I read that correctly?

A. Yes.

Q. And the next sentence says, "Studies in rodents also demonstrate that testosterone, acting during puberty, programs the ability to adapt behavior as a function of social experience." Did I read that correctly?

A. Yes.

Q. Do you agree that rodent studies have shown that ovarian hormones can have long-lasting effects in brain development?

A. I do, although I just want to point out that this is a pair of sentences that follows the sentence that reads, "Although we (the Delphi experts) identify executive function/control and

social functioning as key domains to measure, it is important to note that there is no clear evidence that progressing through puberty later than peers is associated with delayed maturation of abstract reasoning, executive function and social capacities," which is sort of the point I was making before.

Q. Talking about emotional development, correct?

A. Well, that was one part of the sentence that I read, but not all of it.

Q. And so my question is do you agree that rodent studies have shown that ovarian hormones can have long-lasting effects in brain development?

MX. SWAMINATHAN: Objection to form.

A. I agree that's what it says here, but I don't have any specific expert knowledge in that.

Q. (Continuing, by Mr. Ramer) And if a scientist is faced with animal studies reporting that pubertal hormones have long-lasting -- excuse me. I'll just start again. If a scientist is faced with animal studies reporting that pubertal hormones have long-lasting effects on brain development, shouldn't that scientist conclude there is some possibility that pubertal hormones may also have long-lasting effects on

1 brain development in humans?

2 MX. SWAMINATHAN: Objection to form.

3 A. I don't disagree with that, but I want to point
4 out that we're talking as if puberty will never
5 happen, that all of the patients that we're
6 talking about will go through puberty and be
7 exposed to puberty hormones, and so I just want
8 to keep that in mind when we're talking through
9 these topics.

10 Q. (Continuing, by Mr. Ramer) You agree there is a
11 distinction between endogenous puberty and puberty
12 through the use of cross-sex hormones, correct?

13 A. There is lots of differences, but I don't know
14 if there's differences as it relates to what
15 we're talking about today.

16 Q. Before seeing this article, were you aware of
17 references in literature regarding the effect of
18 pubertal suppression on brain development in
19 animals?

20 A. I was aware that there is some study related to
21 sheep, and so yes.

22 Q. Now that you're aware of this discussion of rodent
23 studies, does this cause you as a clinician to
24 want to know the answer to the question of
25 whether puberty blockers have long-lasting

1 effects on brain development in a human child?

2 MX. SWAMINATHAN: Objection to form.

3 A. So I think to answer your question I would say
4 that if there was a study that demonstrated that
5 there was significant differences in cognitive
6 outcomes or some other brain outcomes in someone
7 that was provided pubertal suppression for the
8 treatment of gender dysphoria, I would be
9 surprised by that finding, but of course I would
10 want to know that and that would impact my
11 conversation with patients.

12 Q. (Continuing, by Mr. Ramer) And my question is
13 now that you're aware of these studies in
14 rodents that we just read about, does that cause
15 you as a clinician to want to know the answer to
16 the question of whether puberty blockers have
17 long-lasting effects on brain development in a
18 human child?

19 MX. SWAMINATHAN: Objection to form,
20 asked and answered.

21 A. I think I would want to know the answer to that
22 question regardless, but I have no piqued
23 interest after hearing this rodent information.
24 I think that I have, as I answered in previous
25 questions, opinions about this topic and would

1 like to learn any new data related to this topic.

2 Q. (Continuing, by Mr. Ramer) This is new data to
3 you, isn't it?

4 MX. SWAMINATHAN: Objection to form.

5 A. I want to, if there is new human data related to
6 this topic, I would like to know about it.
7 Sorry. I think I lost myself in my answer. Do
8 you have a question that I can start over with?

9 Q. (Continuing, by Mr. Ramer) Before reading this
10 paragraph, you were unaware of the rodent
11 studies being referenced here, correct?

12 MX. SWAMINATHAN: Objection to form.

13 A. These specific rodent studies, yes.

14 Q. (Continuing, by Mr. Ramer) Now that you are
15 aware of them, does that give you any concern
16 about whether these same effects would result in
17 humans?

18 MX. SWAMINATHAN: Objection, asked and
19 answered.

20 A. So here's why I'm having trouble. Because, all
21 right, so here's a study about ovarian hormones
22 in rodents that have some action on the
23 excitatory-inhibitory balance in the prefrontal
24 cortex, a study of rodents that testosterone
25 during puberty programs the ability to adapt

1 behavior as a function of social experience, and
2 so the real-life human patients that we're
3 talking about will experience puberty slightly
4 later than they would have otherwise if they're
5 treated with pubertal suppression. Does this
6 make me more interested in how puberty hormones
7 affect brain development? Maybe, yes, but the
8 real thing that's most important to me is what
9 would the consequence of exposure to hormones
10 that cause worsening distress do versus delaying
11 puberty and then exposing the brain to the
12 hormones that is in line with their gender
13 identity. I think that the topics that we're
14 talking about with regards to brain development
15 are interesting that I share with patients, as I
16 said, the information that is available on this
17 topic. There is, of course, more to learn, but
18 it doesn't change my understanding of the
19 balance of risks and benefits, safety and
20 efficacy of pubertal suppression.

21 Q. (Continuing, by Mr. Ramer) How can it not change
22 your assessment of the balances of risks and
23 benefits when it goes to a risk that you, by
24 your own statement, don't fully understand?

25 MX. SWAMINATHAN: Objection,

1 mischaracterizes the testimony.
 2 A. I don't think I fully understand a lot of things
 3 in medicine, but I'm able to read the literature,
 4 understand what the literature has to say with
 5 respect to risks and benefits, and then provide
 6 counsel.
 7 Q. (Continuing, by Mr. Ramer) And you've never read
 8 this part of the literature, correct?
 9 A. I haven't read these mouse studies on brain
 10 development, no.
 11 Q. Or the study from Diane Chen that we're reading
 12 right now, correct?
 13 A. Correct.
 14 Q. I'd like to go to page 252 of this document, and
 15 in the left column about halfway down there's a
 16 sentence beginning, "The effects of pubertal
 17 suppression." Do you see that?
 18 A. Yes.
 19 Q. I'm going to read that sentence and the
 20 following sentence and ask if I read it
 21 correctly. It says, "The effects of pubertal
 22 suppression may not appear for several years.
 23 Any GnRHa-related difference in brain structure
 24 is likely to be observed over the long term,
 25 rather than immediately." Did I read that

1 correctly?
 2 A. Yes.
 3 Q. And do you agree with those statements?
 4 A. I don't know that I can agree with or not agree
 5 with that sentence in isolation. I could maybe
 6 go off the record and read the larger section
 7 perhaps?
 8 Q. Did we already go off the record for you to read
 9 this article?
 10 A. I went off the record to read the abstract and
 11 then I had a better understanding of the
 12 article. You're picking out a sentence in the
 13 middle of a paragraph that I haven't read, so if
 14 you're asking do I think that the effects of
 15 pubertal suppression may not appear for several
 16 years, I don't know what effects they're talking
 17 about, and so if I say I agree with that, I'm
 18 not sure what I'm agreeing to. "Any GnRHa-related
 19 difference in brain structure is likely to be
 20 observed over the long time, rather than
 21 immediately." Difference in what, I'm not sure,
 22 but I think that the people that are writing
 23 this article are probably experts in neuroscience
 24 to some degree and I don't have anything to
 25 dispute what they're talking about, but I can't

1 give a more cogent expert answer to the question.
 2 Q. I'll rephrase the question then. Do you have
 3 any reason to disagree with those two sentences?
 4 A. No.
 5 Q. And then last part of this paper, page 255, left
 6 column, second full paragraph about halfway down
 7 there's a sentence that begins, "Yet evidence
 8 suggests." Do you see that?
 9 A. Yes.
 10 Q. I'm going to read that sentence and the
 11 following sentence and first ask if I read them
 12 correctly. "Yet, evidence suggests an
 13 overoccurrence of neurodiversity characteristics
 14 (especially related to autism) among
 15 gender-referred youth. The neurodevelopmental
 16 impacts of pubertal suppression on neurodiverse,
 17 gender-diverse youth might well be different
 18 than in neurotypical gender-diverse youth, given
 19 variations in neurodevelopmental trajectories
 20 observed across neurodevelopmental conditions."
 21 Did I read that correctly?
 22 A. Yes.
 23 Q. And we've already discussed that it's consistent
 24 with your own clinical observation that young
 25 people with neurodiverse characteristics, such

1 as autism, are disproportionately represented as
 2 compared to the general population, correct?
 3 MX. SWAMINATHAN: Objection,
 4 mischaracterizes testimony.
 5 A. Yes.
 6 Q. (Continuing, by Mr. Ramer) Are you aware of any
 7 study researching the effects of puberty
 8 blockers on neurodevelopment in adolescents with
 9 neurodiverse characteristics?
 10 A. No.
 11 Q. Okay. We can move on from that. Now, switching
 12 gears a little bit to talk about your practice,
 13 you began practicing at Michigan, the University
 14 of Michigan in 2015, correct?
 15 A. Yes.
 16 Q. And was that when you first began prescribing
 17 puberty blockers as a treatment for gender
 18 dysphoria?
 19 A. Well, as a pediatric endocrinology fellow, I was
 20 in training to become a pediatric endocrinologist
 21 and I worked within the pediatric gender clinic
 22 at Boston Children's Hospital prescribing
 23 medications under guidance of a preceptor.
 24 Q. Under guidance of a what?
 25 A. A preceptor or like when a medical trainee sees

1 a patient, then he makes a plan and that plan
 2 has to be discussed with the attending physician,
 3 and we call that person the preceptor.
 4 Q. Did not know that. And so, but when you went to
 5 Michigan, it would have been the first time that
 6 you were prescribing puberty blockers not under
 7 the supervision of a preceptor, is that right?
 8 A. Independently, correct.
 9 Q. And is that the same for cross-sex hormones?
 10 A. Yes.
 11 Q. And for patients who were at the beginning of
 12 Tanner Stage 2 back when you started, they would
 13 be approximately 25 years old now, correct?
 14 A. Yes.
 15 Q. And you do not have a formal system of following
 16 your patients when they graduate into adult
 17 care, correct?
 18 A. Correct.
 19 Q. And your patients typically graduate into adult
 20 care by early twenties, is that correct?
 21 A. Yes.
 22 Q. And your clinic does not collect data to
 23 determine the percentage of patients who cease
 24 to suffer from diagnosed gender dysphoria
 25 without medical intervention, correct?

1 they graduate to adult care to see how they are
 2 doing, correct?
 3 MX. SWAMINATHAN: Objection to form.
 4 A. There is not a formal system of follow-up like
 5 that, no.
 6 Q. (Continuing, by Mr. Ramer) You don't even try to
 7 maintain an informal system, correct?
 8 MX. SWAMINATHAN: Objection to form.
 9 A. I encourage patients to keep in touch, but not
 10 in a methodological way to study outcomes.
 11 Q. (Continuing, by Mr. Ramer) And you aren't aware
 12 of any follow-up with your patients beyond the
 13 age of 27, correct?
 14 A. Sorry, one more time.
 15 Q. You are not aware of any follow-up with your
 16 patients beyond the age of 27, correct?
 17 A. Correct.
 18 Q. So you do not have clinical experience with
 19 respect to patient outcomes after 27 years of
 20 age, correct?
 21 A. Correct.
 22 Q. And you have never undertaken any longitudinal
 23 study of the outcomes of minors treated with
 24 gender transition interventions at your clinic,
 25 correct?

1 MX. SWAMINATHAN: Objection to form.
 2 A. Correct.
 3 Q. (Continuing, by Mr. Ramer) And your clinic does
 4 not collect data to determine the percentage of
 5 patients who begin puberty blockers and then
 6 choose to cease puberty blockers without
 7 proceeding to cross-sex hormones, correct?
 8 MX. SWAMINATHAN: Objection to form.
 9 A. Yes.
 10 Q. (Continuing, by Mr. Ramer) And your clinic does
 11 not collect data to determine the percentage of
 12 patients who begin puberty blockers, proceed on
 13 to take cross-sex hormones and then later
 14 recover healthy levels of fertility, correct?
 15 MX. SWAMINATHAN: Objection to form.
 16 A. Correct.
 17 Q. (Continuing, by Mr. Ramer) And your clinic does
 18 not collect data to determine the percentage of
 19 patients who begin puberty blockers, proceed on
 20 to take cross-sex hormones and then
 21 detransition, later on, correct?
 22 MX. SWAMINATHAN: Objection to form.
 23 A. Correct.
 24 Q. (Continuing, by Mr. Ramer) And you do not
 25 endeavor to check in with your patients after

1 A. Correct.
 2 Q. And you have never conducted any clinical trials
 3 related to gender dysphoria, correct?
 4 A. Correct.
 5 Q. In your practice you use the WPATH, W-P-A-T-H,
 6 Standards of Care 8 in your practice, correct?
 7 A. Sorry. Can I just go back to the last question?
 8 Q. Sure.
 9 A. I have performed research in my career, and so I
 10 think the my last answer is somewhat incorrect,
 11 but I'm not sure that the research is related to
 12 the question you asked in terms of a longitudinal
 13 study following outcomes, so I have -- so I just
 14 wanted to clarify that.
 15 Q. And what's the nature of the research that
 16 you've conducted?
 17 A. So, for example, I was involved in a study
 18 documenting the co-occurrence of neurodiversity
 19 and gender dysphoria. I was involved in a
 20 study, a qualitative study talking about dating
 21 and romance in patients with gender dysphoria,
 22 studies related to co-occurrence of other mental
 23 health disorders and gender dysphoria, so a
 24 variety of studies outlined in my C.V., but so I
 25 just wanted to make that clarification.

Q. No, I appreciate that. And the first study you mentioned about neurodiversity, was that reviewing data from somewhere or reviewing literature or a combination of both?

MX. SWAMINATHAN: Objection to form.

A. It was reviewing the patient population at Boston Children's Hospital and counting how many -- we were performing an autism spectrum disorder related questionnaire and then documenting how many people met certain criteria for that diagnosis relative to the patient population of the clinic and documenting the increased prevalence, as has been subsequently reported by other centers.

Q. (Continuing, by Mr. Ramer) Thank you. And going back to the question I was moving on to regarding guidelines, the first question is you use the WPATH Standards of Care 8 in your practice, correct?

A. Yes.

Q. And you also use the Endocrine Society guidelines, correct?

A. Yes.

(Marked Exhibit No. 14.)

Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've

just been handed what's been marked as Shumer Exhibit 14, is that correct?

A. Yes.

Q. And does this appear to be the Adolescents chapter of the Standards of Care 8?

A. Yes.

Q. I'd like to go to page S-46 and left column toward the end of the carryover paragraph in that column, the second to last sentence starts at, "Therefore." Do you see that?

A. Yes.

Q. And I'll first read it and ask if I read it correctly. It says, "Therefore, a systematic review regarding outcomes of treatment in adolescents is not possible." Did I read that correctly?

A. Yes.

Q. Do you agree that a systematic review regarding outcomes of treatment in adolescents is not possible?

MX. SWAMINATHAN: Objection to form.

A. I don't know that I agree. I think, you know, a systematic review is simply a review of the literature using specific inclusion and exclusion criteria, so you can do a systematic review on

something. I think maybe what they're saying is they didn't feel like there was enough, the number of studies was insufficient to do this systematic review, but yet there have been systematic reviews attempting to answer these questions subsequently, so I would not agree.

Q. (Continuing, by Mr. Ramer) And you've never conducted a systematic review, correct?

A. Correct.

Q. And it would be wrong to say that the WPATH Standards of Care 8 is a systematic review, correct?

MX. SWAMINATHAN: Objection to form.

A. Correct.

Q. (Continuing, by Mr. Ramer) And it would be wrong to say that the Endocrine Society guidelines are a systematic review, correct?

MX. SWAMINATHAN: Same objection.

A. Correct.

Q. (Continuing, by Mr. Ramer) I'd like to go to Exhibit 4, which is the transcript from your deposition in K.C. and I'd like to go to page 243.

A. Which exhibit number is it?

Q. I'm sorry, it's Exhibit 4, and page 243 in the transcript.

MX. SWAMINATHAN: Page 243 at the top.

Q. (Continuing, by Mr. Ramer) And lines three through eight I'll first read and ask if I read it correctly. It says, "So I would suggest that in both the WPATH document and the Endocrine document, they go through at length about how they determined all of the relevant articles that they included and -- and, therefore, I think the term 'systematic review' fits in both of those cases." Did I read that correctly?

A. Yes.

Q. So that's wrong, correct?

MX. SWAMINATHAN: Objection to form.

A. I think through the last year or two, as I've been thinking about these words, I would no longer make the same assertion, no.

Q. (Continuing, by Mr. Ramer) Thank you. You agree that studies that suffer from a high risk of bias are likely to be excluded from systematic reviews, correct?

A. I think there's a few words in there that could use defining, but in general a systematic review will be upfront about their inclusion and exclusion criteria and the goal of the systematic review is to try to answer a question, so they would be

1 excluding studies that they didn't feel like
2 helped answer that question, and studies that
3 are thought to be overly biased could,
4 therefore, be excluded for that reason.

5 Q. And when we're talking about bias in this
6 context, what is your understanding of that word?

7 A. A bias study, the outcome of a bias study is
8 different from the truth due to some biasing factor.

9 Q. And what are some examples of a biasing factor
10 in this context?

11 A. In this context?

12 Q. I'll rephrase that. And the reason I'm asking
13 this is because for us non-medical folks, bias
14 tends to carry very different meaning and it's a
15 very specialized meaning here, so that's all I'm
16 trying to understand is when you say that there
17 are issues in a study that might contribute to
18 bias, could you just help me understand what are
19 some examples?

20 MX. SWAMINATHAN: Objection to form.

21 A. Yeah, so if you wanted to determine the average
22 height of a student at a Detroit high school and
23 you showed up and measured everyone's height at
24 the basketball practice, you might have a biased
25 result because you wouldn't have randomly

1 sampled. You would be sampling a group of
2 students that are probably taller than the
3 average, and so your study would be biased. The
4 error there is that you didn't think about
5 randomizing your study sample in order to
6 capture to eliminate sources of bias, such as
7 while all the tall kids don't usually hang out,
8 they do happen to in basketball.

9 Q. (Continuing, by Mr. Ramer) And are you familiar
10 with the phrase confound or a confounding factor?

11 MX. SWAMINATHAN: Objection to form.

12 A. Yes.

13 Q. (Continuing, by Mr. Ramer) And can you explain
14 what that means?

15 A. I think so. So let's say we're doing a study
16 of, let's say we're doing a study about COVID
17 and we're giving everybody a red lollipop to
18 treat their COVID. By the end of the study, all
19 of the people have gotten better from COVID. To
20 say that it was the red lollipop would be
21 confounded by the fact that COVID tends to get
22 better over time and so the cause that the red
23 lollipop helps the COVID is incorrect and
24 there's another reason and that would be a
25 confounding factor.

1 Q. And just to ask a question with that example
2 slightly modified, if you were -- if everybody
3 who received a COVID vaccine also received a red
4 lollipop and they never contracted COVID as a
5 result, you wouldn't say the lollipop was the
6 reason they didn't contract COVID because of the
7 confound between those two variables, correct?

8 MX. SWAMINATHAN: Objection to form.

9 A. Right, that would be true, and I think that you
10 would know that as a scientist in part because
11 there is no scientific rationale that the red
12 lollipop could have prevented COVID.

13 Q. (Continuing, by Mr. Ramer) And the first example
14 you gave of the basketball team, would it be fair
15 to describe that form of bias as selection bias?

16 A. Yes.

17 Q. And do you agree that having a small sample size
18 for a study could potentially contribute to the
19 risk of bias in the study?

20 MX. SWAMINATHAN: Objection to form.

21 A. It could.

22 Q. (Continuing, by Mr. Ramer) And are you familiar
23 with the phrase lost to follow-up?

24 A. Yes.

25 Q. And can you explain what that means?

1 A. In the context of research, it would mean that a
2 person that started in the study didn't continue
3 in the study until the end to report their outcome.

4 Q. Did you assess the studies you cite in your
5 declaration for risk of bias?

6 MX. SWAMINATHAN: Objection to form.

7 A. I think with any study that I read, I expect
8 there to be some sources of potential bias and
9 that I'm reading a study with that in mind, but
10 the answer to your question is yes.

11 Q. (Continuing, by Mr. Ramer) And you may have
12 slightly answered it, but I just want to make
13 sure I understand. How do you go about assessing
14 the risk of bias in a particular study?

15 A. I think I would answer that by saying when I'm
16 reading a study, oftentimes I'm reading that
17 because I have clinical questions and answers
18 myself. So I have a patient in front of me that
19 is say considering treatment with GnRHa, puberty
20 blockers, and I might read the de Vries study,
21 right, and hear that patients that lived in the
22 Netherlands in the beginning of this century who
23 were prescribed pubertal suppression followed by
24 hormones in the context of a multi-disciplinary
25 clinic while receiving psychotherapy had a

positive outcome, and so then I might think to myself how similar is this patient in front of me to that experience and is there bias in the fact that those patients are different than the patients here. It's a different decade. Is the psychotherapy that we're offering here the same as what they were offering there. Is the societal support the same or is it so different that I can't reliably use this study to help answer my question, and so those are the sort of things that I'm thinking about when I'm thinking about a study in how helpful it is, how the biases may impact me clinically in my question that I'm tasked with answering.

Q. In the context of assessing research, have you ever heard the phrase indirectness?

A. I don't believe so.

Q. When you are assessing studies for risk of bias, do you ever use a tool to assist in doing that?

MX. SWAMINATHAN: Objection to form.

A. So I wouldn't say that that's a common thing that I would do. I think that say if I was preparing clinical practice guidelines, I might employ a tool to grade the evidence. If I was presenting in a journal club, I might employ a

tool to present the article in a professional way. If I'm reading the Journal of Endocrinology and Metabolism New Edition to see what is out there that might be relevant to my practice, I might not apply a particular tool every time I read a new article, no.

Q. (Continuing, by Mr. Ramer) Have you ever used a tool to assess the risk of bias in an individual study?

MX. SWAMINATHAN: Objection to form.

A. I haven't, for example, myself used like the grade system to grade an article myself. I'm aware of what that tool does and how it works, but that's not something that I have done or do, no.

MR. RAMER: I'm kind of about to pivot into another segment. We have been going just under an hour. Maybe this is a good time to take a short break.

MX. SWAMINATHAN: Do you have a sense of approximately how long you have?

MR. RAMER: Do you want to go off the record?

MX. SWAMINATHAN: That's fine.

VIDEOGRAPHER: Off the record. The time is 1:16.

(Recess 1:16 p.m. to 1:26 p.m.)

VIDEOGRAPHER: We're back on the record at 1:26.

(Marked Exhibit No. 15.)

Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've been handed what's been marked as Shumer Exhibit 15 and does this appear to be the de Vries study that you were previously discussing?

A. Yes.

Q. And I'd like you to just tell me how you would assess this study for risk of bias.

A. I guess that's a pretty broad question, but I guess in my attempt to answer it, I would say that there is 55 individuals in this study, so that these individuals are being followed across a long period of time and that there is specific things that are unique to these individuals and certain things that are generalize-able about these individuals I would say, so the number, we can start with 55, you know, the larger the number of individuals in a study, the better in terms of eliminating some elements of bias, and so for the study that I would consider the longest longitudinal study, I would say that it's not a tiny number of patients and it's also

a number that if there was studies with larger numbers of patients, that would of course be helpful. These patients are Dutch. They are living in families that are supportive of their gender identity with access to medical care at the clinic that they're going to. They're receiving care that is specifically unique to the clinic that they're enrolled in and so those are things that you have to think about how well do those features generalize to the patients that we're seeing here in a different country in a clinic that's not identical to the clinic that they are describing, so they're also picking different measures, outcome measures that may or may not be the outcome measures that we would choose if we were doing a study today, so the strengths of the study would be that it follows patients over a long period of time through a very well-described sequence of interventions. They measure a lot of different outcomes and the results of those outcomes are significant, so there's pros and cons of the study. I think it's in part generalize-able to the care that we do here, but when I'm thinking about how to provide care to pediatric patients in the U.S.

<p style="text-align: right;">Page 122</p> <p>1 strictly focused on this study, for example, I</p> <p>2 would want to as closely recreate the</p> <p>3 multi-disciplinary clinic as possible that</p> <p>4 they're describing for the study to be as</p> <p>5 applicable as it could be.</p> <p>6 Q. You read a lot of medical literature, correct?</p> <p>7 A. Yes.</p> <p>8 Q. In your opinion, would a sample size of 55 be</p> <p>9 considered small?</p> <p>10 MX. SWAMINATHAN: Objection to form.</p> <p>11 A. I think it would be -- I would say it depends on</p> <p>12 the research question being asked, but small to</p> <p>13 medium. I would not call it a large sample.</p> <p>14 Q. (Continuing, by Mr. Ramer) And do you think that</p> <p>15 there are any prominent potential confounding</p> <p>16 variables in this study?</p> <p>17 A. Yes.</p> <p>18 Q. Like what?</p> <p>19 A. I'm trying to see if they actually list some of</p> <p>20 their hypotheses on what could be confounding,</p> <p>21 but from my perspective there are, and as I kind</p> <p>22 of alluded to this before, there is a whole</p> <p>23 system of care that they're implementing,</p> <p>24 including psychological support, including sort</p> <p>25 of wrap-around services from a mental health</p>	<p style="text-align: right;">Page 123</p> <p>1 perspective, that when you are drawing conclusions</p> <p>2 from this study, the strongest conclusion you</p> <p>3 can make is that this particular system of care</p> <p>4 resulted in the improvement and trying to</p> <p>5 isolate the use of the blockers and hormones and</p> <p>6 surgery, which of those helps the most, which of</p> <p>7 those contributed most to the outcomes that are</p> <p>8 measured successfully at the end is more</p> <p>9 challenging to determine.</p> <p>10 Q. And all these patients were receiving</p> <p>11 psychotherapy, correct?</p> <p>12 A. Correct.</p> <p>13 Q. And so psychotherapy could be a confounding</p> <p>14 variable with respect to any reported</p> <p>15 improvement, correct?</p> <p>16 MX. SWAMINATHAN: Objection to form.</p> <p>17 A. Right. I think that is what I meant with my</p> <p>18 answer, that the system of care, including</p> <p>19 psychotherapy, led to the improvement, and so</p> <p>20 which components of that system were most</p> <p>21 important is hard to disentangle from this paper</p> <p>22 and that the, yes, the psychotherapy could be an</p> <p>23 example of a potential confounder.</p> <p>24 Q. (Continuing, by Mr. Ramer) And we've been</p> <p>25 discussing risks and benefits in terms of</p>
<p style="text-align: right;">Page 124</p> <p>1 deciding whether to provide a particular</p> <p>2 intervention, correct?</p> <p>3 A. Yes.</p> <p>4 Q. And if you set benefits to the side and you're</p> <p>5 looking only at the risks, do you agree that</p> <p>6 psychotherapy entails fewer risks than hormone</p> <p>7 therapy?</p> <p>8 MX. SWAMINATHAN: Objection to form.</p> <p>9 A. Yes.</p> <p>10 Q. (Continuing, by Mr. Ramer) And do you know</p> <p>11 anything about the number of subjects who were</p> <p>12 lost to follow-up in this study?</p> <p>13 A. I don't know if reading a section of the paper</p> <p>14 would help remind me of the answer to that, but</p> <p>15 off the top of my head, no.</p> <p>16 Q. Do you think that this study measured the proper</p> <p>17 outcomes?</p> <p>18 MX. SWAMINATHAN: Objection to form.</p> <p>19 A. This study measured a lot of outcomes, including</p> <p>20 things like gender dysphoria, body image, global</p> <p>21 functioning, depression, anxiety, emotional and</p> <p>22 behavioral problems, et cetera, and I think that</p> <p>23 those are examples of things that I care about</p> <p>24 as a clinician, so in general, yes.</p> <p>25 Q. (Continuing, by Mr. Ramer) And we'll set this to</p>	<p style="text-align: right;">Page 125</p> <p>1 the side for a moment. I'd like to return to</p> <p>2 Shumer Exhibit 14, which is the adolescents</p> <p>3 chapter of the SOC8 and I'd like to go to S-46</p> <p>4 where we were before and specifically left</p> <p>5 column down toward the bottom of the paragraph</p> <p>6 that begins in that column. Do you see it's</p> <p>7 citing de Vries, et al 2014?</p> <p>8 A. Yes.</p> <p>9 Q. And the following sentence says, "The 2014</p> <p>10 long-term follow-up study is the only study that</p> <p>11 followed youth from early adolescence</p> <p>12 (pretreatment, mean age of 13.6) through young</p> <p>13 adulthood (posttreatment, mean age of 20.7)."</p> <p>14 Do you see that?</p> <p>15 A. Yes.</p> <p>16 Q. And SOC8 was published in 2022, correct?</p> <p>17 A. Yes.</p> <p>18 Q. Do you agree that when the SOC8 was published,</p> <p>19 the only study on gender-affirming care for minors</p> <p>20 that had long-term follow-up was the de Vries</p> <p>21 2014 study?</p> <p>22 MX. SWAMINATHAN: Objection to form.</p> <p>23 A. I think it depends on what we mean by long-term</p> <p>24 follow-up. So the beginning of this paragraph</p> <p>25 outlines, "At the time of this chapter's</p>

1 writing, there were several longer-term
2 longitudinal cohort follow-up studies reporting
3 positive results of early (i.e., adolescent)
4 medical treatment;" and then they list one, two,
5 three, four, five, six studies, but then say
6 that this is the longest term.

7 Q. (Continuing, by Mr. Ramer) During your deposition
8 in Boe versus Marshall when you were asked
9 whether you agree that when the SOC8 was
10 published in 2022 that the de Vries 2014 study
11 was the only study that had a long-term
12 follow-up, you answered yes, correct?

13 A. Yes.

14 MX. SWAMINATHAN: Objection to form.

15 A. Yes.

16 Q. (Continuing, by Mr. Ramer) And you're not aware
17 of the any new study since the SOC8 was
18 published that had long-term follow-up, correct?

19 A. Again, I think it depends on what we mean by
20 long-term follow-up. So we talked a little bit
21 about Dr. Chen. There is a longitudinal study
22 that she published that followed people on
23 hormones over two years, so there are
24 longitudinal studies. There is nothing longer
25 than the de Vries study that we're talking about

1 and nothing that goes over from early puberty to
2 adulthood like de Vries does, so my answer would
3 be the same.

4 Q. You would describe two years of follow-up as a
5 long-term follow-up study?

6 MX. SWAMINATHAN: Objection to form.

7 A. I would call it a longitudinal study that related
8 to the outcomes of the hormone intervention.
9 It's two years. Is that long or not? I think
10 that we can agree that it's two years and that
11 is clinically significant to the patients
12 enrolled in the study on hormones. I use that
13 as part of the body of literature when I'm
14 talking to patients about what we do and don't
15 know about the outcomes of treated patients with
16 gender dysphoria.

17 Q. (Continuing, by Mr. Ramer) And I'm trying to
18 understand your opinion as somebody who reviews
19 medical literature. You would describe a study
20 that has two-year follow-up as a long-term
21 follow-up study?

22 MX. SWAMINATHAN: Objection,
23 mischaracterizes the testimony.

24 A. I wouldn't call it a long-term follow-up study.
25 In this thing that we're reading from the WPATH,

1 they're describing several longer-term
2 longitudinal cohort follow-up studies. I don't
3 know what their definition of longer-term
4 longitudinal cohort follow-up studies are
5 either, but I guess the point I'm making is
6 longitudinal studies exist, so the longer, the
7 better, and there are several of them that exist
8 that follow patients on treatment, the longest
9 being Exhibit 15.

10 Q. (Continuing, by Mr. Ramer) When you first began
11 providing puberty blockers and cross-sex hormones
12 as a treatment for gender dysphoria back in 2015,
13 what evidence were you relying on?

14 MX. SWAMINATHAN: Objection to form.

15 A. So in 2015 there had been literature published
16 around the treatment of gender dysphoria, a less
17 robust volume of literature than exists today,
18 and so when describing the medical options to
19 patients in 2015, we could talk about the Dutch
20 experience, we could talk about the current
21 evidence base which is different than it is
22 today and patients would be making decisions
23 with less longitudinal data than they are today.

24 Q. (Continuing, by Mr. Ramer) When you refer to the
25 Dutch experience, that experience is what is

1 captured in this de Vries 2014 study, correct?

2 A. Yes.

3 Q. And so when you saw this study, you thought that
4 you had seen enough to know that you could
5 ethically give these interventions to kids, is
6 that right?

7 MX. SWAMINATHAN: Objection,
8 mischaracterizes the testimony.

9 A. While I can't put myself back in 2015 and recall
10 which evidence I was relying upon, at that time
11 I felt that the body of evidence was sufficient
12 that, yes, I could ethically prescribe.

13 Q. (Continuing, by Mr. Ramer) This de Vries 2014
14 study in 2015 was far and away the best study on
15 these interventions, correct?

16 MX. SWAMINATHAN: Objection to form.

17 A. I think it's the best longitudinal study, yes.

18 Q. (Continuing, by Mr. Ramer) I mean what other
19 study rivals this back in 2015?

20 A. I don't know that I can answer that question.

21 Q. Would you provide hormone therapy as a treatment
22 for gender dysphoria if you had little
23 confidence that it achieved a benefit?

24 MX. SWAMINATHAN: Objection to form.

25 A. No.

1 Q. (Continuing, by Mr. Ramer) Would you provide
2 puberty blockers as a treatment for gender
3 dysphoria if you had little confidence that they
4 achieved a benefit?

5 MX. SWAMINATHAN: Objection to form.

6 A. No.

7 Q. (Continuing, by Mr. Ramer) As part of your work,
8 you keep track of international developments
9 with respect to transgender medicine, correct?

10 MX. SWAMINATHAN: Objection to form.

11 A. Yes.

12 Q. (Continuing, by Mr. Ramer) And do you discuss
13 developments in Europe regarding gender-affirming
14 care for minors with your patients?

15 A. I have, but not typically.

16 Q. How often do you do that?

17 A. So there have been situations where a parent has
18 asked a question about something she read about
19 something in Europe and then I would talk to
20 them about that. I think I've been more and
21 more incorporating something about the Cass
22 Report because I feel like that has made its way
23 into the lay literature to the extent that
24 describing my understanding of the Cass Report
25 to patients I find to be helpful sometimes, but

1 I'm not in the habit of going around the world
2 and saying how care is provided in Finland
3 versus Sweden versus the United Kingdom versus
4 the Netherlands and then here in the U.S., so
5 there's a lot to go through when we're talking
6 about these medications and that hasn't, that
7 level of detail about Europe, the care in Europe
8 hasn't become incorporated into my patient
9 conversation.

10 Q. You said it has not been incorporated into your
11 patient conversation?

12 A. Correct.

13 Q. I'd like to go to Shumer Exhibit 6, which is the
14 transcript of your deposition in Noe versus
15 Parson.

16 A. Number six?

17 Q. Correct.

18 A. Okay.

19 Q. And I'd like to go page 22 of that transcript,
20 and beginning around line eight, I'd just like
21 you to read to yourself line eight through the
22 beginning of line one on page 23 and just let me
23 know when you have finished that.

24 A. Okay.

25 Q. And so here you seem to suggest that you do talk

1 about the topics of Europe in your discussion with
2 patients about the provision of gender-affirming
3 care, correct?

4 A. Well, I don't think this is different from,
5 necessarily different from what I said. I said
6 that I've been incorporating discussion about
7 the Cass Report, but I don't go around to each
8 country and talk about what they're doing, but
9 that I talk about the fact that there is this
10 controversy to patients and I've been doing that
11 more, but, no, I don't go into detail about each
12 country and how they provide care.

13 Q. So are you saying you only talk about the Cass
14 Report?

15 MX. SWAMINATHAN: Objection, form.

16 A. Out of all of the topics related to Europe,
17 that's the topic that I started spending more
18 time on with patients, yes.

19 Q. (Continuing, by Mr. Ramer) And so lines 14
20 through 19, I'm just going to read. It says,
21 "So I talk about the -- the fact that there's --
22 that in -- in different countries in Europe,
23 they -- they provide care in different ways. In
24 these countries, they review the data and
25 provide their country -- each country has

1 different -- different ways that gender-affirming
2 care is provided." Do you agree that there you
3 are talking about more than one country?

4 MX. SWAMINATHAN: Objection to form.

5 A. I agree I'm not going into details about each
6 country and I'm not sure what to tell you. I
7 think I started talking about the fact that this
8 controversy exists, that different countries in
9 Europe do things differently, that I started to
10 share my understanding of the Cass Report, but
11 that if families want more information about how
12 Sweden is providing care, then I would certainly
13 provide them that material. It's just not a
14 topic that has been important for families to
15 ask more about.

16 Q. (Continuing, by Mr. Ramer) So you have not
17 incorporated a discussion about Sweden into your
18 conversation with patients, is that right?

19 A. Yes.

20 MX. SWAMINATHAN: Objection to form.

21 A. Yes.

22 Q. (Continuing, by Mr. Ramer) And you have not
23 incorporated a discussion about Finland in your
24 conversation with patients, is that right?

25 MX. SWAMINATHAN: Same objection.

1 A. That's correct.

2 Q. (Continuing, by Mr. Ramer) And you have not
3 incorporated a discussion about Norway in your
4 conversations with patients, is that right?

5 MX. SWAMINATHAN: Objection to form.

6 A. That's right.

7 Q. (Continuing, by Mr. Ramer) But you have
8 incorporated a discussion about the Cass Review
9 with patients, is that right?

10 MX. SWAMINATHAN: Objection to form.

11 A. I often have been talking about the Cass Report
12 in clinic, yes.

13 Q. (Continuing, by Mr. Ramer) And you do that
14 regardless of whether somebody asks you a
15 question about it, is that right?

16 MX. SWAMINATHAN: Objection to form.

17 A. So I can't say with certain that I mentioned the
18 Cass Report or gone into much detail about it
19 with every patient that I've seen since this
20 deposition or trial that each conversation with
21 each family is individualized such that the
22 relationship built with each family and the
23 exact conversation, there's some variance there.
24 I think that I found it to be helpful recently
25 to talk about the Cass Report when I'm talking

1 about GnRH agonists specifically and that has
2 become I would say part of my general discussion.
3 Whether or not I've done that with every patient
4 that I've seen since then, since this transcript
5 was produced, I can't say for certain, but it's
6 something that I've been talking more about with
7 patients.

8 Q. (Continuing, by Mr. Ramer) This deposition was
9 under four months ago, correct?

10 A. Yes.

11 Q. And why do you find it helpful to discuss the
12 Cass Review in the context of pubertal suppression?

13 A. Because I find that people have heard of the
14 Cass Review in the lay media and parents may
15 have questions related to it. I think that in
16 general it sounds like from my reading of the
17 lay media, that there could be an assumption
18 that the Cass Report suggests banning care and I
19 think it's important to point out that that
20 isn't what the Cass Report says, and so that
21 misconception is something that I've been
22 discussing with families.

23 Q. And so you think it is worth discussing that
24 with families, but you did not think it was
25 worth mentioning in your declaration, is that

1 right?

2 MX. SWAMINATHAN: Objection to form.

3 A. Yes.

4 Q. (Continuing, by Mr. Ramer) Can you explain that?

5 A. Well, I guess I'm explaining a misconception
6 about the lay media of the Cass Report, which I
7 didn't think was appropriate for an expert report.

8 Q. Your declaration does not discuss any
9 developments in Europe, correct?

10 MX. SWAMINATHAN: Objection to form.

11 A. Correct.

12 Q. (Continuing, by Mr. Ramer) Why did you not think
13 it was worth discussing the developments of
14 Europe in your declaration?

15 MX. SWAMINATHAN: Objection to form.

16 A. Well, I focused on the primary literature in my
17 expert report. When we're talking about Europe,
18 I think we're generally talking about systematic
19 reviews performed by various, commissioned by
20 various government bodies, and so it's basically
21 talking about the same literature that I'm
22 talking about that the WPATH Standards of Care
23 is talking about, that the Endocrine Society is
24 talking about. We're all talking about the same
25 studies and at the end of, at the end of the

1 discussion, there is opinions formed about the
2 total body of evidence. The Endocrine Society,
3 WPATH has looked at that body of evidence and
4 come to a similar conclusion as I have, that
5 gender-affirming care, when done appropriately,
6 is safe and efficacious for the treatment of
7 gender dysphoria. The Cass Report has reviewed
8 much of the same literature and come to a
9 conclusion that literature is less robust than
10 Dr. Cass would like, that in order to provide
11 care appropriate in the United Kingdom, she
12 suggests implementing a system of care organized
13 around a longitudinal group of studies that the
14 UK would run, that the systematic reviews
15 published by other government bodies in Europe
16 have other conclusions. So when I'm talking
17 about the treatment of gender dysphoria, I
18 decided to cite the primary sources rather than
19 to say this is my opinion about it and here's
20 other people's opinion about it.

21 Q. (Continuing, by Mr. Ramer) You agree that
22 reasonable people can review the same evidence
23 as you and reach a contrary conclusion, correct?

24 MX. SWAMINATHAN: Objection to form.

25 A. I agree that reasonable people can reach a

1 different conclusion, but I would disagree with
 2 their conclusion.
 3 Q. (Continuing, by Mr. Ramer) And you are familiar
 4 with the NICE, N-I-C-E, systematic reviews that
 5 were performed in support of the Cass Review's
 6 interim report, correct?
 7 A. Yes.
 8 Q. And you are familiar with the University of York
 9 systematic reviews by Taylor that were performed
 10 in support of the Cass Review's final report,
 11 correct?
 12 A. Yes.
 13 Q. And you are familiar with the systematic review
 14 performed by Ludvigsson, L-u-d-v-i-g-s-s-o-n,
 15 and published in Active Pediatrics, correct?
 16 A. Yes, I've seen that.
 17 Q. Okay. Changing topics, you said you use the
 18 WPATH SOC8 and the Endocrine Society guidelines
 19 in your practice, correct?
 20 A. Yes.
 21 Q. And how do you determine which guidelines to trust?
 22 MX. SWAMINATHAN: Objection to form.
 23 A. Well, to be clear, both of the guidelines are
 24 outlining a very similar system of care with
 25 respect to the use of pubertal suppression and

1 hormones in later adolescence. The Endocrine
 2 Society guidelines are a little bit more focused
 3 on the actual endocrinology aspects, so hormone
 4 prescribing, whereas WPATH Standards of Care,
 5 the adolescents chapter is one chapter of many
 6 that goes into a lot more detail about other
 7 aspects of transgender health, so I don't think
 8 that there is -- I can't think of an instance
 9 where they specifically contradict one another
 10 so to speak, that I have to choose one over the
 11 other, and so it's a more broad statement that
 12 they influence the overall system of care.
 13 Q. (Continuing, by Mr. Ramer) And I apologize. My
 14 question may have been a little unclear. My
 15 question is just as a general matter as a
 16 clinician, there are lots of clinical guidelines
 17 out there. How do you determine which clinical
 18 guidelines you are going to trust?
 19 MX. SWAMINATHAN: Objection to form.
 20 A. That's a good question, and I think the Endocrine
 21 Society, I'm an endocrinologist, so the
 22 Endocrine Society is my professional body's
 23 organization that I have respect for, I'm a
 24 member of. The fact of the matter is there's a
 25 lot of medical problems that I treat that don't

1 have standards of care documents written for it,
 2 that this is in some ways unique in that way.
 3 Of course, the Endocrine Society publishes
 4 clinical practice guidelines on other topics,
 5 but usually they are topics that are somewhat
 6 complex in terms of a system of care, so I would
 7 rely on, you know, for example, the American
 8 Diabetes Association's recommendations for the
 9 treatment of diabetes when I'm trying to remember
 10 what screening tests I'm supposed to order when
 11 I'm taking care of a child with Type 1 diabetes
 12 because the ADA is well-respected and they've
 13 taken the time to review the literature and come
 14 up with these recommendations, and I have similar
 15 reasons for using WPATH and the Endocrine
 16 Society for this reason.
 17 Q. (Continuing, by Mr. Ramer) You agree that clinical
 18 guidelines should not be written with the goal
 19 of obtaining an advantage in litigation, correct?
 20 MX. SWAMINATHAN: Objection to form.
 21 A. Clinical guidelines should not be written -- sorry.
 22 Q. (Continuing, by Mr. Ramer) You agree that clinical
 23 guidelines should not be written with the goal
 24 of obtaining an advantage in litigation, correct?
 25 A. Correct.

1 MX. SWAMINATHAN: Objection to form.
 2 A. Correct.
 3 Q. (Continuing, by Mr. Ramer) And you agree that
 4 the drafting of clinical guidelines should not
 5 be dictated by politics, correct?
 6 MX. SWAMINATHAN: Same objection.
 7 A. Yes.
 8 Q. (Continuing, by Mr. Ramer) And do you agree that
 9 the drafting of clinical guidelines should not
 10 be influenced by politicians?
 11 MX. SWAMINATHAN: Objection to form.
 12 A. Yes.
 13 (Marked Exhibit No. 16.)
 14 Q. (Continuing, by Mr. Ramer) Dr. Shumer, you've
 15 just been handed what's been marked as Shumer
 16 Exhibit 16, and my first question is have you
 17 seen this document before?
 18 A. I don't know if it's this specific document.
 19 I've been exposed to documents similar to this
 20 in my role as an expert in other cases. If this
 21 is related to e-mail exchanges after the
 22 creation of the WPATH Standards of Care, yes.
 23 Q. And I'll just represent to you, the header at
 24 the top corresponds with Boe versus Marshall and
 25 this was just pulled off the public docket from

1 Boe versus Marshall, and do you recognize the
2 name Scott Leibowitz?

3 A. Yes.

4 Q. Who is that?

5 A. He's a child and adolescent psychiatrist that I
6 believe works at Nationwide Children's Hospital
7 in Columbus, Ohio.

8 Q. And in the cc. line do you see the name
9 A.L.C. de Vries?

10 A. Yes.

11 Q. Do you understand that to be Annelou de Vries
12 that we've been discussing her study today?

13 A. That would make sense.

14 Q. Do you know who Eli Coleman is?

15 A. No.

16 Q. And I'd like to just ask you to just read this
17 three pages to just read this and let me know
18 when you're finished. Maybe we can go off the
19 record to do this.

20 MX. SWAMINATHAN: Sure.

21 VIDEOGRAPHER: Going off the record.

22 The time is 2:01.

23 (Recess 2:01 p.m. to 2:05 p.m.)

24 VIDEOGRAPHER: We're back on the
25 record. The time is 2:05.

1 not living in a vacuum. They're aware that the
2 standard of care documents that they release
3 does have the likelihood to result in uproar
4 both from people advocating for less restrictions
5 and people advocating for more restrictions, so
6 the conversation that they're having is a window
7 into a very complex process writing a standard
8 of care document. I don't envy them. My hope
9 is that if there is actual political pressure to
10 make changes, that that political pressure would
11 be ignored. I think in the long and short of
12 it, as it relates to the actual content, I agree
13 that having age cut-offs for a developmental
14 process seems inappropriate, that we make
15 decisions about care based on each individual
16 patient and their needs, so in the end, I agree
17 with not having age cut-offs, for what that's
18 worth, but to answer your question, do I find
19 any of this concerning, I find it concerning
20 that they're having to think about this in the
21 first place because they know that the
22 recommendations that they're going to put
23 forward are going to be attacked by people that
24 want to ban trans health and that they're put in
25 a very difficult yet real predicament that

1 Q. (Continuing, by Mr. Ramer) Doctor, you have read
2 the document that's been marked as Shumer
3 Exhibit 16, correct?

4 A. Yes.

5 Q. Do you find any of the statements in this document
6 troubling with respect to the methodology used
7 to draft the adolescent chapter of the SOC8?

8 MX. SWAMINATHAN: Objection to form.

9 A. I think it's really interesting. I think to
10 start answering your question, I think we can
11 start with this second paragraph of the first
12 page. "The following aims are all important
13 considerations as it relates to this decision:
14 1) Preserve the scientific and ethical integrity
15 of the chapter and its process; 2) improve/promote
16 access to balanced, ethical, gender-affirming
17 care for those adolescents who are appropriate
18 to receive it; and 3) Minimize any risk that the
19 guidelines would lead to more access challenges."
20 On the face of it you would think -- you would
21 hope that clinical practice guidelines or
22 standard of care documents wouldn't be concerned
23 about minimizing risks that the guideline itself
24 would cause access challenges, e.g. legislative
25 bans in this instance, and yet the authors are

1 they're trying to navigate through a private
2 e-mail chain, so what the right answer is, I
3 think that's above my pay grade, but my answer
4 to your question is yes, I would love for
5 politics to play no role in the creation of
6 scientific guidance.

7 Q. (Continuing, by Mr. Ramer) So you do find some
8 of the statements in this document troubling
9 with respect to the methodology used to draft
10 the adolescents chapter of the SOC8?

11 MX. SWAMINATHAN: Objection,
12 mischaracterizes the testimony.

13 A. That was your last question. I think my answer
14 I just gave would be my same answer.

15 Q. (Continuing, by Mr. Ramer) And so the author is
16 being motivated by what politicians are telling
17 them is a problem with respect to methodology
18 for a scientific document, correct?

19 MX. SWAMINATHAN: Objection,
20 mischaracterizes the testimony.

21 A. If that were the case, yes, I think that what
22 we're seeing is a back-and-forth e-mail exchange,
23 but how much what you're describing is actually
24 true, you know, I'm not in the room, but --

25 Q. (Continuing, by Mr. Ramer) If that's true, that

1 they are making edits to a scientific document
2 based on what a politician is telling them, do
3 you think that is a problem?

4 MX. SWAMINATHAN: Objection, asked and
5 answered and mischaracterizes the exhibit.

6 A. If that's true, then I would have a problem with
7 that. I think that there seems to me in reading
8 this, there are people that are on both sides of
9 this, frankly, scientific question about whether
10 or not there should be ages introduced to the
11 WPATH Standards of Care and that there is
12 perceived political pressure in both directions,
13 and so how they ended up deciding on what they
14 ended up deciding on, that I don't know.

15 Q. (Continuing, by Mr. Ramer) Okay. We'll leave
16 that document. And returning to your declaration,
17 Exhibit 1, I'd like to go to page six and in
18 paragraph 24 you say, "Sex is comprised of several
19 components, including, among others, internal
20 reproductive organs, external genitalia,
21 chromosomes, hormones, gender identity, and
22 secondary sex characteristics," correct?

23 A. Yes.

24 Q. And what is it you're citing there?

25 A. I don't think I see the bibliography from this

1 here. If you have what I'm citing, I'm happy to
2 agree with what it is in here.

3 Q. I guess I mean my question is more the document
4 that you cite here for stating that gender
5 identity is a part of sex does not actually say
6 that, correct?

7 A. Yes, I understand what your question is. So
8 you're right, the citation that's listed here
9 doesn't link to something that directly co-exists
10 or implies that gender identity is a component
11 of sex. It links to a citation that describes
12 sex as a multi-faceted concept, including
13 various biologic components, so the definition
14 of sex that I've proposed isn't specifically or
15 strictly supported by that citation.

16 Q. Do you agree that there are individuals whose
17 understanding of their gender identity is
18 sometimes male, sometimes female, and sometimes
19 something different, correct?

20 MX. SWAMINATHAN: Objection to form.

21 A. I suppose that could be someone's understanding
22 of their gender identity, although I don't know
23 that I've encountered someone with that specific
24 understanding.

25 Q. (Continuing, by Mr. Ramer) An individual who

1 identifies as nonbinary would not meet your
2 diagnostic criteria for medical interventions to
3 treat gender dysphoria, correct?

4 MX. SWAMINATHAN: Objection to form.

5 A. So I think that I've probably been asked something
6 like this before and I think that I'll start by
7 saying that in general someone that identifies
8 as nonbinary to me means that they identify as
9 neither male nor female, somewhere in the middle,
10 and that that person would typically not meet
11 criteria for a medical intervention for gender
12 dysphoria according to the current guidelines.
13 That said, you can imagine that someone who
14 meets the criteria for the diagnosis of gender
15 dysphoria identifies as a masculine person,
16 although they were assigned female at birth that
17 has distress associated with their feminine
18 body, desire for masculine characteristics, and
19 when you ask them what their gender identity is,
20 they say they identify as a nonbinary masculine
21 person. That person could meet criteria for the
22 diagnosis of gender dysphoria and treatment with
23 testosterone, for example. The majority of
24 patients that I treat identify as a binary
25 transgender person, but to be black and white

1 about it is I think oversimplifying, so I just
2 want to make sure that I make that clear.

3 Q. (Continuing, by Mr. Ramer) If a patient identified
4 as nonbinary and told you that neither male for
5 female gender fits them, you would not give that
6 patient hormone therapy, correct?

7 MX. SWAMINATHAN: Objection to form,
8 asked and answered.

9 A. Well, you're describing one sentence that a
10 patient has told me in the course of what is
11 likely a multi-hour assessment, so I would want
12 to learn a little bit -- if someone said there
13 as their one-liner, I would then be following up
14 and saying, "Tell me more about that. What does
15 that mean to you," and learning about what they
16 mean by neither male nor female as defined by
17 gender identity or however you framed it. It
18 doesn't sound like someone that would meet
19 criteria or that would benefit from a medical
20 intervention, but I would obviously need to
21 perform a full assessment of that patient before
22 I answer it.

23 Q. (Continuing, by Mr. Ramer) When you say you need
24 further exploration, I guess do you agree that
25 there are people who identify as nonbinary,

<p style="text-align: right;">Page 150</p> <p>1 meaning a gender identity somewhere between male 2 and female? 3 MX. SWAMINATHAN: Objection to form. 4 A. Yes. 5 Q. (Continuing, by Mr. Ramer) And do you think 6 people suffer clinically significant distress 7 when their nonbinary identity is inconsistent 8 with their natal sex? 9 MX. SWAMINATHAN: Objection to form. 10 A. It may. 11 Q. (Continuing, by Mr. Ramer) And if that patient 12 was in front of you, would you provide that 13 patient hormone therapy to treat that distress? 14 MX. SWAMINATHAN: Objection to form. 15 A. I would need to know the source of the stress, 16 what the distress was based in. Is the distress 17 related to lack of secondary sex characteristics 18 that they do not have related to the presence of 19 secondary sex characteristics that they do have? 20 We would be going back to the gender dysphoria 21 definition and seeing if it applied. It likely 22 wouldn't based on how you're describing it, but 23 I would need to talk to the patient about their 24 experience in order to determine that. 25 Q. (Continuing, by Mr. Ramer) What about a patient</p>	<p style="text-align: right;">Page 151</p> <p>1 who is about to -- let me back up. A patient 2 who is at Tanner Stage 2, natal female who says, 3 "I identify as nonbinary and I do not want to 4 develop the secondary sex characteristics 5 associated with my sex assigned at birth," but 6 the patient does not want to develop the 7 secondary sex characteristics associated with a 8 male assigned at birth. First of all, does that 9 hypothetical make sense to you? 10 MX. SWAMINATHAN: Yes. 11 Q. (Continuing, by Mr. Ramer) Would that person 12 satisfy the criteria for medical intervention? 13 MX. SWAMINATHAN: Objection to form. 14 A. I'm trying to be as simple as possible just to 15 answer your question. I would not suggest that 16 person would meet criteria. 17 Q. (Continuing, by Mr. Ramer) And you have never 18 provided medical interventions to an individual 19 who identifies as nonbinary, correct? 20 MX. SWAMINATHAN: Objection to form. 21 A. You know, I can tell you -- I can't tell you 22 that patients that I've prescribed medications 23 to all uniformly describe their gender identity 24 as binary and exactly the same, so I can't say 25 that that statement is 100 percent true. In</p>
<p style="text-align: right;">Page 152</p> <p>1 general the patients that I treat are binary 2 trans patients, and if there is a nonbinary 3 patient that I'm treating, it's because they 4 fulfilled the criteria of gender dysphoria and 5 that the treatments, to be clear, are binary, 6 right, so the patient that is nonbinary 7 identified that would benefit from a binary 8 treatment, that would have to involve an 9 understanding that their gender dysphoria is 10 such that it's very similar to or similar to 11 other binary trans people. 12 Q. (Continuing, by Mr. Ramer) You agree we don't 13 have data to support treatment strategies with 14 respect to hormones for people with a nonbinary 15 identity, correct? 16 MX. SWAMINATHAN: Objection to form. 17 A. Correct. So, for example, in pediatric patients 18 I would not be doing things like prescribing 19 half doses of medications to try to achieve an 20 androgenous look in a nonbinary patient because 21 that is not based in our current body of evidence. 22 Q. (Continuing, by Mr. Ramer) So what do you tell 23 that patient? 24 A. First of all, this hypothetical patient is not a 25 patient that I see frequently. As I said, the</p>	<p style="text-align: right;">Page 153</p> <p>1 majority of patients that I see are binary trans 2 young people that you can suppose that a person 3 that has a nonbinary identity could be prescribed 4 some sort of intervention that would attempt to 5 achieve some middle road presentation, and as a 6 pediatric endocrinologist working at a Children's 7 Hospital that follows evidence-based medicine, I 8 would tell that person that that isn't the way 9 that we are practicing at University of Michigan, 10 that perhaps adult patients of other providers 11 may be able to receive that care using an 12 informed consent model after they turn 18, but 13 that isn't the way we practice in pediatrics. 14 Q. You agree that gender-affirming care is highly 15 individualized, correct? 16 A. Yes. 17 Q. And you would agree it's a very individualized 18 process going through whether or not someone 19 would be eligible for a particular treatment, 20 correct? 21 MX. SWAMINATHAN: Objection to form. 22 A. Yes. 23 Q. (Continuing, by Mr. Ramer) And so, for example, 24 determining whether any particular patient 25 should be prescribed puberty blockers is a</p>

process that is individualized for that patient, correct?

A. Well, I mean individualized to the degree that each individual patient and family is different and unique, but not in the way that the entire process is reinvented for every patient. There are processes that are important to maintain in every patient, the protocol that we use to triage patients to schedule their first evaluation, the areas of inquiry in that evaluation are uniform, but that when we're applying that uniform process to individuals, you know, that's where the medicine happens, right. We do medicine with individuals using processes that we've created based on best practices.

Q. During your deposition in Voe versus Mansfield, when you were asked whether prescribing pubertal suppression is a very individualized assessment and process that you go through in deciding whether or not to recommend that for a patient, you answered yes, correct?

MX. SWAMINATHAN: Objection to form.

A. I'm happy to confirm that. Do you have a page number?

Q. (Continuing, by Mr. Ramer) Exhibit 9 is the

different and that there may be different needs in terms of explaining things in different ways or in their needs for different supports, whether it's school supports or mental health supports, et cetera, so in that way I don't like to say that this care is protocolized, but at the same token, I don't want that to also imply that it's not driven by data and that we're following a -- that we're adhering to some basic principles.

Q. (Continuing, by Mr. Ramer) Okay. But basically no two patients are the same. Is that what you're saying?

MX. SWAMINATHAN: Objection to form.

A. I think that is true and I think that's what I'm saying.

MX. SWAMINATHAN: Counselor, I think we have been going for an hour now.

MR. RAMER: I have two questions left.

MX. SWAMINATHAN: And then we're done?

MR. RAMER: Yes.

MX. SWAMINATHAN: March on.

Q. (Continuing, by Mr. Ramer) I have two planned questions left. I'm sorry. You have never had a personal conversation with somebody who has

transcript, and page 41 in the transcript starting at line 23 and carrying over to the following page 42, line three, and I'll just read it. On line 23 it says, "What is the average -- would prescribing pubertal suppression, is that a very individualized assessment and process that you go through in deciding whether or not to recommend that for a patient?" Answer, "Yes." Correct?

A. Yes.

Q. And would you say the same thing about prescribing cross-sex hormones?

A. I would with just the same caveat, that by individualized, I mean think about each individual person as a unique person, but that we're maintaining the same general processes and diagnostic integrity and the system of care that we have in place.

Q. Well, do you think it is challenging to protocolize gender-affirming care?

MX. SWAMINATHAN: Objection to form.

A. I spend a lot of time saying that it's not protocolized, and when I say that, I'm saying that we're thinking about each individual person as an individual person, that the conversations that I have with each patient and family are

detransitioned, correct?

MX. SWAMINATHAN: Objection to form.

A. I believe that to be true.

Q. (Continuing, by Mr. Ramer) And you agree there is no data linking gender-affirming care to a reduction in suicide, correct?

MX. SWAMINATHAN: Objection to form.

A. Yes, I don't believe that there is strong data linking gender-affirming care in youth to an outcome of less completed suicides.

MR. RAMER: And, Dr. Shumer, thank you very much for your time today. Pending any follow-up questions, those are all the questions I have for you at this point and I'll turn it over to your counsel.

MX. SWAMINATHAN: No further questions from us. We would love a copy of the transcript, no video, and just to state on the record, we would love for Dr. Shumer to be able to read and sign the transcript.

VIDEOGRAPHER: I think that concludes the deposition. We're going to go off the record. The time is 2:27.

(Deposition concluded at 2:27 p.m.)

STATE OF MICHIGAN)

COUNTY OF MACOMB)

I, Ann L. Bacon, a Notary Public in and for the above county and state, do hereby certify that the witness, whose attached deposition was taken before me in the entitled cause on the date, time and place hereinbefore set forth, was first duly sworn to testify to the truth, and nothing but the truth; that the testimony contained in said deposition was reduced to writing in the presence of said witness by means of stenography; that said testimony was thereafter reduced to written form by mechanical means; and that the deposition is, to the best of my knowledge and belief, a true and correct transcript of my stenographic notes so taken.

I further certify that the signature to and the reading of the deposition by the witness was waived by counsel for the respective parties hereto; also, that I am not of counsel to either party or interested in the event of this case.

Ann L. Bacon, Notary Public, Macomb County
Acting in ^ County
My commission expires: 6/29/29

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